# SAFETY DATA SHEET

EXXSOL™ DSP 80/110

## SECTION 1: Identification of the substance/mixture and of the company/ undertaking

### 1.1 Product identifier

**Product name** : EXXSOL™ DSP 80/110

**EC number** : 921-024-6

**REACH Registration number**

| Registration number |
|---|
| 01-2119475514-35-0002 |

**CAS number** : -

**Product description** : Dearomatised Hydrocarbons

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Intended Use** : Solvent

| Identified uses |
|---|
| Manufacture of substance |
| Distribution of substance |
| Use as an intermediate |
| Formulation and (re)packing of substances and mixtures |
| Use in coatings - Industrial |
| Use in cleaning agents - Industrial |
| Lubricants - Industrial |
| Use in metal working fluids/rolling oils - Industrial |
| Use as binders and release agents - Industrial |
| Use as a fuel - Industrial |
| Functional fluids - Industrial |
| Use in laboratories - Industrial |
| Use in rubber production and processing |
| Use in coatings - Professional |
| Use in cleaning agents - Professional |
| Lubricants - Professional (Low release) |
| Lubricants - Professional (high release) |
| Use in metal working fluids/rolling oils - Professional |
| Use as binders and release agents - Professional |
| Use as a fuel - Professional |
| Functional fluids - Professional |
| Road and construction applications |
| Use in laboratories - Professional |
| Use in coatings - Consumer |
| Use in cleaning agents - Consumer |
| Lubricants - Consumer (Low release) |
| Lubricants - Consumer (high release) |
| Use as a fuel - Consumer |
| Functional fluids - Consumer |
| Other consumer uses |

**Uses advised against**

Not applicable.

### 1.3 Details of the supplier of the safety data sheet

**Supplier** : ExxonMobil Petroleum & Chemical BV
POLDERDIJKWEG
Antwerpen B-2030 Belgium

# SECTION 1: Identification of the substance/mixture and of the company/ undertaking

**Supplier General Contact** : + 32 2 239 3111

**e-mail address of person responsible for this SDS** : SDS-CC@exxonmobil.com

**SDS Internet Address** : www.sds.exxonmobil.com

**National contact**

ExxonMobil Chemical Ltd.

MAILPOINT 14
MARSH LANE
FAWLEY, SOUTHAMPTON
SO45 1TX HAMPSHIRE
Great Britain

+44 (0)23-8089-3822

### 1.4 Emergency telephone number

**National advisory body/ Poison Centre** : (UK) 111

**24 Hour Emergency Telephone** : +44 20 3807 3798 / +1-703-527-3887 (CHEMTREC)

# SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : UVCB

**Classification according to UK CLP/GHS**

Flam. Liq. 2, H225
Skin Irrit. 2, H315
STOT SE 3, H336
Asp. Tox. 1, H304
Aquatic Chronic 2, H411

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :

**Signal word** : Danger

**Hazard statements** :
H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** :
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P261 - Avoid breathing vapour.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.

## SECTION 2: Hazards identification

P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.

**Response** : P301 + P331, P310 - IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P312, P340 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P370 + P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
P391 - Collect spillage.

**Storage** : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 - Keep cool.
P405 - Store locked up.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : 3, 40, 57

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** :

| PBT | P | B | T | vPvB | vP | vB |
|---|---|---|---|---|---|---|
| No | N/A | N/A | No | N/A | N/A | N/A |

**Other hazards which do not result in classification** : None known.

**Nota** : This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

## SECTION 3: Composition/information on ingredients

**3.1 Substances** : UVCB

## SECTION 3: Composition/information on ingredients

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|---|---|---|
| naphtha (petroleum), hydrotreated light | REACH #: 01-2119475514-35<br>EC: 921-024-6<br>CAS: - | 100 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411 | [1] |
| cyclohexane | REACH #: 01-2119463273-41<br>EC: 203-806-2<br>CAS: 110-82-7 | 10 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1) | [1] |
| n-hexane | EC: 203-777-6<br>CAS: 110-54-3 | <5 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Repr. 2, H361f<br>STOT SE 3, H336<br>STOT RE 2, H373 (peripheral nervous system)<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411<br>**See Section 16 for the full text of the H statements declared above.** | [1] |

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

Note: Any entry in the EC# column that begins with the number "9" is a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance. See Section 15 for additional CAS number information for the substance.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 10 minutes. Get medical attention.

## SECTION 4: First aid measures

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed

**Over-exposure signs/symptoms**

**Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Numbness, muscle cramps, weakness and paralysis that may be delayed.

**Skin contact** : Adverse symptoms may include the following:
irritation
redness

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This material, or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

**Specific treatments** : No specific treatment.

**See toxicological information (Section 11)**

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use dry chemical, $CO_2$, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

## SECTION 5: Firefighting measures

**Specific hazards arising from the chemical** : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion products** : Incomplete combustion products, Oxides of carbon, Smoke, Fume

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Assure an extended cooling down period to prevent re-ignition. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

**NOTIFICATION PROCEDURES**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow

## SECTION 6: Accidental release measures

material to evaporate. If the Flash Point exceeds the Ambient Temperature by 10 deg C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. Seek the advice of a specialist before using dispersants. Warn other shipping. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Static Accumulator** : This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

**Loading/Unloading Temperature** : Ambient

**Transport Temperature** : Ambient

**Transport Pressure** : Ambient

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**Seveso Directive - Reporting thresholds**

**Named substances**

## SECTION 7: Handling and storage

| Name | Notification and MAPP threshold | Safety report threshold |
|---|---|---|
| Petroleum products and alternative fuels (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams) (d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) | 2500 tonnes | 25000 tonnes |

**Danger criteria**

| Category | Notification and MAPP threshold | Safety report threshold |
|---|---|---|
| P5c<br>E2 | 5000 tonnes<br>200 tonnes | 50000 tonnes<br>500 tonnes |

**Storage Temperature** : Ambient

**Storage Pressure** : Ambient

**Suitable Containers/ Packing** : Tank Trucks, Drums, Railcars, Barges, Tankers, Tank Cars

**Suitable Materials and Coatings** : Carbon Steel, Stainless Steel, polyethylene, polypropylene, Teflon, Polyester

**Unsuitable Materials and Coatings** : butyl rubber, Natural Rubber, Ethylene-proplyene-diene monomer (EPDM), Polystyrene

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | **ExxonMobil (COMPANY)**<br>RCP - TWA: 249 ppm (Total Hydrocarbons). Form: Vapour..<br>RCP - TWA: 1000 mg/m³ (Total Hydrocarbons). Form: Vapour.. |
| naphtha (petroleum), hydrotreated light | **ACGIH TLV (United States, 1/2024) [branched hexane isomers]**<br>TWA 8 hours: 200 ppm.<br>**ACGIH TLV (United States, 1/2024) [hexane]** Absorbed through skin.<br>TWA 8 hours: 100 ppm. |
| cyclohexane | **EH40/2005 WELs (United Kingdom (UK), 1/2020)**<br>STEL 15 minutes: 1050 mg/m³.<br>STEL 15 minutes: 300 ppm.<br>TWA 8 hours: 100 ppm.<br>TWA 8 hours: 350 mg/m³.<br>**EU OEL (Europe, 1/2022)**<br>TWA 8 hours: 700 mg/m³.<br>TWA 8 hours: 200 ppm.<br>**ACGIH TLV (United States, 1/2024)**<br>TWA 8 hours: 100 ppm. |
| n-hexane | **EH40/2005 WELs (United Kingdom (UK), 1/2020)**<br>TWA 8 hours: 72 mg/m³.<br>TWA 8 hours: 20 ppm.<br>**EU OEL (Europe, 1/2022)** |

## SECTION 8: Exposure controls/personal protection

| | |
|---|---|
| | TWA 8 hours: 72 mg/m³.<br>TWA 8 hours: 20 ppm.<br>**ACGIH TLV (United States, 1/2024)** Absorbed through skin.<br>TWA 8 hours: 50 ppm. |

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | **DNEL - Workers - Long term - Inhalation**<br>2035 mg/m³<br>Effects: Systemic<br><br>**DNEL - Workers - Long term - Dermal**<br>773 mg/kg bw/day<br>Effects: Systemic<br><br>**DNEL - General population - Long term - Oral**<br>699 mg/kg bw/day<br>Effects: Systemic<br><br>**DNEL - General population - Long term - Dermal**<br>699 mg/kg bw/day<br>Effects: Systemic<br><br>**DNEL - General population - Long term - Inhalation**<br>608 mg/m³<br>Effects: Systemic |
| cyclohexane | **DNEL - Workers - Long term - Dermal**<br>2016 mg/kg bw/day<br>Effects: Systemic<br><br>**DNEL - General population - Long term - Oral**<br>59.4 mg/kg bw/day<br>Effects: Systemic<br><br>**DNEL - Workers - Long term - Inhalation**<br>700 mg/m³<br>Effects: Systemic<br><br>**DNEL - General population - Long term - Dermal**<br>1186 mg/kg bw/day<br>Effects: Systemic<br><br>**DNEL - General population - Long term - Inhalation**<br>206 mg/m³<br>Effects: Systemic |

### PNECs

| Product/ingredient name | Result |
|---|---|

## SECTION 8: Exposure controls/personal protection

cyclohexane

**Fresh water**
0.207 mg/l

**Sewage treatment plant**
3.24 mg/l

**Marine water**
0.207 mg/l

**Fresh water sediment**
3.627 mg/kg dwt

**Soil**
2.99 mg/kg

### 8.2 Exposure controls

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Nitrile, minimum 0.38 mm thickness or comparable protective barrier material

CEN standards EN 420 and EN 374 provide general requirements and lists of glove types.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## SECTION 8: Exposure controls/personal protection

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter (Type A)

European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## Section 9. Physical and chemical properties and safety characteristics

**Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state** : Liquid. [Clear]

**Colour** : Colourless

**Odour** : Slight

**Odour threshold** : Not available.

**pH** : Not applicable.

**Melting point/freezing point** : Not available.

**Boiling point or initial boiling point and boiling range** : 89 to 107°C (192.2 to 224.6°F) [ASTM D86]

**Flash point** : Closed cup: -13°C (8.6°F) [Calculated]

**Evaporation rate** : 5 (butyl acetate = 1) [In-house method ,]

**Flammability** : Flammable liquids - Category 2

**Lower and upper explosive (flammable) limits** : Lower: 1.1% [Extrapolated]
Upper: 7%

**Vapour pressure** : 45 mm Hg [20 °C] [Calculated]

**Relative vapour density** : 3.3 [Air = 1] [In-house method ,]

**Relative density** : 0.72 [Calculated]

**Density** : 0.72 g/cm³ [15°C (59°F)] [ISO 12185]

**Solubility in water** : Negligible

**Partition coefficient: n-octanol/water** : >4 [Estimated]

**Auto-ignition temperature** : 268°C (514.4°F) [ASTM E659]

**Decomposition temperature** : Not applicable.

**Viscosity** : 0.7 cSt [20 °C] [ASTM D7042]

**Molecular weight** : 97

**Particle characteristics**

**Median particle size** : Not applicable.

**Pour point** : <-20°C [Calculated]

**Hygroscopic** : No

**Coefficient of Thermal Expansion** : 0.00125 per Deg C

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:,oxidising materials,Strong oxidisers

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | **Rat - Oral - LD50**<br>>5000 mg/kg<br><br>**Rabbit - Dermal - LD50**<br>>2920 mg/kg<br><br>**Rat - Inhalation - LC50 Vapour**<br>>20 mg/l [4 hours] |

**Conclusion/Summary**

**Inhalation** : Minimally Toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 403

**Dermal** : Minimally Toxic. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402

**Oral** : Minimally Toxic. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401

#### Acute toxicity estimates

N/A

#### Irritation/Corrosion

**Conclusion/Summary**

**Skin** : Irritating to the skin. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404

**Eyes** : May cause mild, short-lasting discomfort to eyes. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405

**Respiratory** : Negligible hazard at ambient/normal handling temperatures. No end point data for material.

#### Respiratory or skin sensitization

**Conclusion/Summary**

**Skin** : Not expected to be a skin sensitizer. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406 429

**Respiratory** : Not expected to be a respiratory sensitizer. No end point data for material.

# SECTION 11: Toxicological information

## Mutagenicity

**Conclusion/Summary** : Not expected to be a germ cell mutagen. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 473 476

## Carcinogenicity

**Conclusion/Summary** : Not expected to cause cancer. No end point data for material.

## Reproductive toxicity

**Conclusion/Summary** : Not expected to be a reproductive toxicant. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 414 416

## Specific target organ toxicity (single exposure)

**Conclusion/Summary** : May cause drowsiness or dizziness. No end point data for material.

## Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Target organs |
|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | Not applicable. | - |

**Conclusion/Summary** : Not expected to cause organ damage from prolonged or repeated exposure. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 413

## Aspiration hazard

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | Category 1 |

**Conclusion/Summary** : May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material. Data available.

**Information on likely routes of exposure** : Not available.

## Other information

**Contains** : N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown. Contains hexane; individuals with pre-existing neurological disease should avoid exposure.

**Product** : Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Exposure to this material, or one of its components, in situations where there is the potential for high levels, such as in confined spaces or with abuse, may result in abnormal heart rhythm (arrhythmia). High-level exposure to hydrocarbons (above occupational exposure limits) may initiate arrhythmia in a worker that is undergoing stress or is taking a heart-stimulating substance such as epinephrine, a nasal decongestant, or an asthma or cardiovascular drug. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

# Section 12. Ecological information

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

## 12.1 Toxicity

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | **Acute - NOEL**<br>Algae - *Pseudokirchneriella subcapitata*<br>3 mg/l - data for similar materials [72 hours]<br><br>**Acute - LL50**<br>Fish - *Oncorhynchus mykiss*<br>11.4 mg/l - data for similar materials [96 hours]<br><br>**Acute - EL50**<br>daphnia - *Daphnia magna*<br>3 mg/l - data for similar materials [48 hours]<br><br>**Acute - EL50**<br>Algae - *Pseudokirchneriella subcapitata*<br>30 to 100 mg/l - data for similar materials [72 hours]<br><br>**Chronic - NOEC**<br>daphnia - *Daphnia magna*<br>0.17 mg/l - data for similar materials [21 days]<br><br>**Chronic - LOEC**<br>daphnia - *Daphnia magna*<br>0.32 mg/l - data for similar materials [21 days] |

**Conclusion/Summary**

**Acute toxicity** : Toxic to aquatic life.

**Chronic toxicity** : Toxic to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

| Product/ingredient name | Result |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | Ready Biodegradability<br>81% [28 days] |

**Biodegradability** : Material -- Available OECD 301F biodegradation data indicate that material is readily biodegradable (=60% in 28 days).

**Hydrolysis** : Material -- Transformation due to hydrolysis not expected to be significant.

**Photolysis** : Material -- Transformation due to photolysis not expected to be significant.

**Atmospheric Oxidation** : Material -- Expected to degrade rapidly in air

## 12.3 Bioaccumulative potential

Not determined.

## 12.4 Mobility in soil

**Mobility** : Material -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

## 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## 12.6 Other adverse effects

**Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

**Special precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | UN3295 | UN3295 | UN3295 | UN3295 |
| **14.2 UN proper shipping name** | HYDROCARBONS, LIQUID, N.O.S. | HYDROCARBONS, LIQUID, N.O.S. | HYDROCARBONS, LIQUID, N.O.S. | Hydrocarbons, liquid, n.o.s. |
| **14.3 Transport hazard class(es)** | 3  | 3  | 3  | 3  |
| **14.4 Packing group** | II | II | II | II |
| **14.5 Environmental hazards** | Yes. | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |

**Additional information**

## SECTION 14: Transport information

**ADR/RID** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
**Hazard identification number** 33
**Limited quantity** 1 L
**Special provisions** 640D
**Tunnel code** (D/E)

**ADN** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
**Special provisions** 640D

N2

**IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
**Emergency schedules** F-E, S-D

Flash point -13 °C C.C.

**IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
**Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.
**Special provisions** A3, A324

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not applicable.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### UK (GB)/REACH

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

#### Ozone depleting substances

Not listed.

#### Prior Informed Consent (PIC)

Not listed.

#### Persistent Organic Pollutants

Not listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : 3, 40, 57

#### Seveso Directive

This product is controlled under the Seveso Directive.

#### Named substances

## SECTION 15: Regulatory information

| Name |
| --- |
| Petroleum products and alternative fuels (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams) (d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) |

**Danger criteria**

| Category |
| --- |
| P5c<br>E2 |

**National regulations**

| Product/ingredient name | List name | Name on list | Classification | Notes |
| --- | --- | --- | --- | --- |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, n-hexane | ACGIH TLV | branched hexane isomers | A3 | - |
| | ACGIH TLV | hexane | A3 | |

**EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**Inventory list**

**Australia inventory (AIIC)** : All components are listed or exempted.

**Canada inventory (DSL-NDSL)** : All components are listed or exempted.

**China inventory (IECSC)** : All components are listed or exempted.

**Japan inventory (CSCL)** : All components are listed or exempted.

**Japan inventory (Industrial Safety and Health Act)** : All components are listed or exempted.

**New Zealand Inventory of Chemicals (NZIoC)** : All components are listed or exempted.

**Philippines inventory (PICCS)** : All components are listed or exempted.

**Korea inventory (KECI)** : All components are listed or exempted.

**Taiwan Chemical Substances Inventory (TCSI)** : All components are listed or exempted.

**United States inventory (TSCA 8b)** : All components are active or exempted.

The national inventory listings are based on the CAS number or numbers listed below.

64742-49-0

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

## SECTION 16: Other information

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification | Justification |
|---|---|
| Flam. Liq. 2, H225 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| STOT SE 3, H336 | Calculation method |
| Asp. Tox. 1, H304 | Calculation method |
| Aquatic Chronic 2, H411 | Expert judgment |

**Full text of abbreviated H statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361f | Suspected of damaging fertility. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Full text of classifications**

| | |
|---|---|
| Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |
| Flam. Liq. 2 | FLAMMABLE LIQUIDS - Category 2 |
| Repr. 2 | REPRODUCTIVE TOXICITY - Category 2 |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| STOT RE 2 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |

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**Version** : 0.05

**Product code** : 1168362

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## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Manufacture of substance

**List of use descriptors** : **Identified use name:** Manufacture of substance
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
**Sector of end use:** SU03, SU08, SU09, SU10
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC01, ERC04

**Environmental contributing scenarios** : **General exposures -** ERC01, ERC04

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**General exposures (open systems) -** PROC04
**Process sampling -** PROC08b
**Laboratory activities -** PROC15
**Bulk transfers -** PROC08b
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Manufacture of the substance or use as an intermediate, process chemical or extracting agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (ncluding marine vessel/barge, road/rail car and bulk container).

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 3 300 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 33 000 kg/day
Regional use tonnage (tonnes/year): 3 300 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 100 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.05
Release fraction to soil from process (initial release prior to RMM): 0.0001
Release fraction to wastewater from process (initial release prior to RMM): 0.0003

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of : >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 90 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 10 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 1 600 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | During manufacturing, no waste of the substance is generated. |
| **Conditions and measures related to external recovery of waste** | : | During manufacturing, no waste of the substance is generated. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Process sampling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Bulk transfers**

Open systems / Closed systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 1.1.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Process sampling**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 6: Laboratory activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 7: Bulk transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 8: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 9: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.00046<br>Maximum Risk Characterisation Ratios for waste water emissions 0.02<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Distribution of substance

**List of use descriptors** : **Identified use name:** Distribution of substance
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
**Sector of end use:** SU03, SU08, SU09
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC01, ERC02, ERC03, ERC04, ERC05, ERC06a, ERC06b, ERC06c, ERC06d, ERC07

**Environmental contributing scenarios** : **General exposures -** ERC01, ERC02, ERC03, ERC04, ERC05, ERC06a, ERC06b, ERC06c, ERC06d, ERC07

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**General exposures (open systems) -** PROC04
**Process sampling -** PROC03
**Laboratory activities -** PROC15
**Bulk transfers -** PROC08b
**Drum and small package filling -** PROC09
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading distribution and associated laboratory activities.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.02 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.002
Maximum daily site tonnage (kg/day): 1 kg/day
Regional use tonnage (tonnes/year): 10 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.001
Release fraction to soil from process (initial release prior to RMM): 0.00001
Release fraction to wastewater from process (initial release prior to RMM): 0.00001

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of : >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 90 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow (: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 50 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

## Contributing scenario controlling worker exposure for 2: General measures applicable to all activities

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Process sampling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Bulk transfers**

Open systems / Closed systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Drum and small package filling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

## Section 3 - Exposure estimation and reference to its source

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1: General exposures**

**Exposure assessment (environment):** : Hydrocarbon Block Method (Petrorisk)

**Exposure estimation and reference to its source** : ESVOC SPERC 1.1b.v1

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Process sampling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Laboratory activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Drum and small package filling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000001<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00002<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use as an intermediate

**List of use descriptors** : **Identified use name:** Use as an intermediate
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
**Sector of end use:** SU03, SU08, SU09
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC06a

**Environmental contributing scenarios** : **General exposures -** ERC06a

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC15
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**General exposures (open systems) -** PROC04
**Process sampling -** PROC08b
**Laboratory activities -** PROC15
**Bulk transfers -** PROC08b
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 12 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 600 kg/day
Regional use tonnage (tonnes/year): 12 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.025
Release fraction to soil from process (initial release prior to RMM): 0.001
Release fraction to wastewater from process (initial release prior to RMM): 0.0003

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 80 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 330 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | This substance is consumed during use and no waste from the substance is generated. |
| **Conditions and measures related to external recovery of waste** | : | This substance is consumed during use and no waste from the substance is generated. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Process sampling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Bulk transfers**

Open systems / Closed systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 6.1a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Process sampling**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 6: Laboratory activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 7: Bulk transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 8: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 9: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions: 0.0000017<br>Maximum Risk Characterisation Ratios for waste water emissions: 0.0018<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Formulation and (re)packing of substances and mixtures

**List of use descriptors** : **Identified use name:** Formulation and (re)packing of substances and mixtures
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC14, PROC15
**Sector of end use:** SU03, SU10
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC02

**Environmental contributing scenarios** : **General exposures -** ERC02

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC14, PROC15
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**General exposures (open systems) -** PROC04
**Batch processes at elevated temperatures -** PROC03
**Process sampling -** PROC03
**Laboratory activities -** PROC15
**Bulk transfers -** PROC08b
**Mixing operations (open systems) -** PROC05
**Transfer from/pouring from containers -** PROC08a
**Drum/batch transfers -** PROC08b
**Production of preparation or articles by tabletting, compression, extrusion or pelletisation -** PROC14
**Drum and small package filling -** PROC09
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 61 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 6 100 kg/day
Regional use tonnage (tonnes/year): 61 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 10 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

| | | |
|---|---|---|
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 0.025<br>Release fraction to soil from process (initial release prior to RMM): 0.0001<br>Release fraction to wastewater from process (initial release prior to RMM): 0.0002 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of : >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 0 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 $m^3$/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 490 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |

| | | |
|---|---|---|
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Batch processes at elevated temperatures**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Process sampling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Bulk transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Mixing operations (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Transfer from/pouring from containers**

Manual

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Drum/batch transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Production of preparation or articles by tabletting, compression, extrusion or pelletisation**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 13: Drum and small package filling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 14: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 15: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 2.2.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Batch processes at elevated temperatures**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Process sampling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Laboratory activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Mixing operations (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Transfer from/pouring from containers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Production of preparation or articles by tabletting, compression, extrusion or pelletisation**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Drum and small package filling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000041<br>Maximum Risk Characterisation Ratios for waste water emissions 0.012<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in coatings - Industrial

**List of use descriptors** : **Identified use name:** Use in coatings - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC14, PROC15
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC04

**Environmental contributing scenarios** : **General exposures -** ERC04

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC14, PROC15
**General exposures (closed systems) -** PROC01, PROC02
**Film formation - force drying, stoving and other technologies -** PROC02
**Mixing operations (closed systems) -** PROC03
**Film formation - air drying -** PROC04
**Preparation of material for application -** PROC05
**Spraying (automatic/robotic) -** PROC07
**Manual spraying -** PROC07
**Material transfers -** PROC08a, PROC08b
**Roller, spreader, flow application -** PROC10
**Dipping, immersion and pouring -** PROC13
**Laboratory activities -** PROC15
**Transfer from/pouring from containers -** PROC09
**Production of preparation or articles by tabletting, compression, extrusion or pelletisation -** PROC14
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01

**Processes and activities covered by the exposure scenario** : Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

## Section 2 - Exposure controls

### Contributing scenario controlling environmental exposure for 1: General exposures

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 540 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 27 000 kg/day
Regional use tonnage (tonnes/year): 540 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

| | | |
|---|---|---|
| **Environment factors not influenced by risk management** | : | Local freshwater dilution factor: 10<br>Local marine water dilution factor: 100 |
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.98<br>Release fraction to soil from process (initial release prior to RMM): 0<br>Release fraction to wastewater from process (initial release prior to RMM): 0.0007 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, no on-site wastewater treatment required.<br>If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 90%<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 79.4 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow (: 2 000 $m^3$/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 140 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

With sample collection / Use in contained systems

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Handle substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Film formation - force drying, stoving and other technologies**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Mixing operations (closed systems)**

General exposures (closed systems)

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Handle substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Film formation - air drying**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: Preparation of material for application**

Mixing operations (open systems)

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: Spraying (automatic/robotic)**

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Manual spraying**

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

| | | |
|---|---|---|
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Material transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Roller, spreader, flow application**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Dipping, immersion and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Organisational measures to prevent/limit releases, dispersion and exposure** | : | Avoid manual contact with wet work pieces. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 13: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 14: Transfer from/pouring from containers**

Material transfers / Drum/batch transfers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 15: Production of preparation or articles by tabletting, compression, extrusion or pelletisation**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 16: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 17: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.3a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Film formation - force drying, stoving and other technologies**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Mixing operations (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 6: Film formation - air drying**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 7: Preparation of material for application**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 8: Spraying (automatic/robotic)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Manual spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Material transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Roller, spreader, flow application**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Dipping, immersion and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Laboratory activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Transfer from/pouring from containers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Production of preparation or articles by tabletting, compression, extrusion or pelletisation**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 16: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 17: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0014<br>Maximum Risk Characterisation Ratios for waste water emissions 0.19<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in cleaning agents - Industrial

**List of use descriptors** : **Identified use name:** Use in cleaning agents - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC04

**Environmental contributing scenarios** : **General exposures -** ERC04

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC10, PROC13
**Bulk transfers -** PROC08a
**Automated process with (semi) closed systems -** PROC02, PROC03
**Application of cleaning products in closed systems -** PROC02
**Filling/preparation of equipment from drums or containers. -** PROC08b
**Use in contained batch processes -** PROC04
**Degreasing small objects in cleaning station -** PROC13
**Cleaning with low-pressure washers -** PROC10
**Cleaning with high pressure washers -** PROC07
**Surface cleaning -** PROC10
**Storage -** PROC01

**Processes and activities covered by the exposure scenario** : Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 100 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 5 000 kg/day
Regional use tonnage (tonnes/year): 280 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 1
Release fraction to soil from process (initial release prior to RMM): 0
Release fraction to wastewater from process (initial release prior to RMM): 0.000003

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by soil.<br>Treat air emission to provide a typical removal efficiency of: 70 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 6 100 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: Bulk transfers**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Automated process with (semi) closed systems**

Use in contained systems / Drum/batch transfers

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Application of cleaning products in closed systems**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Filling/preparation of equipment from drums or containers.**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Use in contained batch processes**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Degreasing small objects in cleaning station**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Cleaning with low-pressure washers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Cleaning with high pressure washers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Surface cleaning**

Manual

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.4a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Bulk transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Automated process with (semi) closed systems**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Application of cleaning products in closed systems**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Use in contained batch processes**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Degreasing small objects in cleaning station**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Cleaning with low-pressure washers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Cleaning with high pressure washers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Surface cleaning**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.00082
Maximum Risk Characterisation Ratios for waste water emissions 0.00015
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

| | | |
|---|---|---|
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Lubricants - Industrial

**List of use descriptors** :
**Identified use name:** Lubricants - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC17, PROC18
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC04, ERC07

**Environmental contributing scenarios** : **General exposures -** ERC04, ERC07

**Health Contributing scenarios** :
**General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC17, PROC18
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**General exposures (open systems) -** PROC04
**Bulk transfers -** PROC08b
**Filling/preparation of equipment from drums or containers. -** PROC08a, PROC08b
**Initial factory fill of equipment -** PROC09
**Operation and lubrication of high energy open equipment -** PROC17, PROC18
**Roller application or brushing of adhesive and other coating -** PROC10
**Treatment by dipping and pouring -** PROC13
**Spraying -** PROC07
**Maintenance (of larger plant items) and machine set-up. -** PROC08b
**Maintenance of small items -** PROC08a
**Remanufacture of reject articles -** PROC09
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 10 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 500 kg/day
Regional use tonnage (tonnes/year): 10 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

| | | |
|---|---|---|
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.01<br>Release fraction to soil from process (initial release prior to RMM): 0.001<br>Release fraction to wastewater from process (initial release prior to RMM): 0.00003 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 70 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 $m^3$/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 3 300 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |

| | | |
|---|---|---|
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Bulk transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Filling/preparation of equipment from drums or containers.**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Initial factory fill of equipment**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Operation and lubrication of high energy open equipment**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Roller application or brushing of adhesive and other coating**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Treatment by dipping and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Spraying**

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Maintenance (of larger plant items) and machine set-up.**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 13: Maintenance of small items**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 14: Remanufacture of reject articles**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 15: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.6a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Initial factory fill of equipment**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Operation and lubrication of high energy open equipment**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Treatment by dipping and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Maintenance (of larger plant items) and machine set-up.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Maintenance of small items**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Remanufacture of reject articles**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0000018<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00015<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in metal working fluids/rolling oils - Industrial

**List of use descriptors** : **Identified use name:** Use in metal working fluids/rolling oils - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC17
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC04

**Environmental contributing scenarios** : **General exposures -** ERC04

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC17
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**General exposures (open systems) -** PROC04
**Bulk transfers -** PROC08b
**Filling/preparation of equipment from drums or containers. -** PROC05, PROC08b, PROC09
**Process sampling -** PROC08b
**Metal machining operations -** PROC17
**Treatment by dipping and pouring -** PROC13
**Spraying -** PROC07
**Roller application or brushing of adhesive and other coating -** PROC10
**Automated metal rolling/forming -** PROC02
**Semi-automated metal rolling/forming -** PROC04, PROC17
**Equipment cleaning and maintenance -** PROC08a, PROC08b
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Covers the use in formulated MWFs/rolling oils including transfer operations, rolling and annealing activities, cutting/machining activities, automated and manual application of corrosion protections (including brushing, dipping and spraying), equipment maintenance, draining and disposal of waste oils.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 2.1 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 110 kg/day
Regional use tonnage (tonnes/year): 2.1 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

| | | |
|---|---|---|
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.02<br>Release fraction to soil from process (initial release prior to RMM): 0<br>Release fraction to wastewater from process (initial release prior to RMM): 0.00003 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 70 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 $m^3$/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 3 300 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |

| | | |
|---|---|---|
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Bulk transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Filling/preparation of equipment from drums or containers.**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Process sampling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Metal machining operations**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Treatment by dipping and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Spraying**

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Roller application or brushing of adhesive and other coating**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Automated metal rolling/forming**

Use in contained systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 13: Semi-automated metal rolling/forming**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 14: Equipment cleaning and maintenance**

Dedicated facility / Non-dedicated facility

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 15: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.7a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Process sampling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Metal machining operations**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Treatment by dipping and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Automated metal rolling/forming**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Semi-automated metal rolling/forming**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0000014<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000032<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use as binders and release agents - Industrial

**List of use descriptors** : **Identified use name:** Use as binders and release agents - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC06, PROC07, PROC08a, PROC08b, PROC10, PROC13, PROC14
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC04

**Environmental contributing scenarios** : **General exposures -** ERC04

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC06, PROC07, PROC08a, PROC08b, PROC10, PROC13, PROC14
**Material transfers -** PROC01, PROC02, PROC03
**Drum/batch transfers -** PROC08b
**Mixing operations (closed systems) -** PROC03
**Mixing operations (open systems) -** PROC04
**Mould forming -** PROC14
**Casting operations -** PROC06
**Spraying -** PROC07
**Roller application or brushing of adhesive and other coating -** PROC10
**Storage -** PROC01, PROC02
**Dipping, immersion and pouring -** PROC13

**Processes and activities covered by the exposure scenario** : Covers the use as binders and release agents including material transfers, mixing, application (including spraying and brushing), mould forming and casting, and handling of waste.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 30 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 1 500 kg/day
Regional use tonnage (tonnes/year): 30 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 1
Release fraction to soil from process (initial release prior to RMM): 0
Release fraction to wastewater from process (initial release prior to RMM): 0.000003

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by soil.<br>Treat air emission to provide a typical removal efficiency of: 80 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 9 200 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: Material transfers**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Transfer via enclosed lines.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Drum/batch transfers**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Mixing operations (closed systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Mixing operations (open systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: Mould forming**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: Casting operations**

Open systems

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature). Aerosol generation due to elevated process temperature

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Spraying**

Machine / Manual

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 10: Roller application or brushing of adhesive and other coating**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Dipping, immersion and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.10a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Material transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Mixing operations (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Mixing operations (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Mould forming**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Casting operations**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Dipping, immersion and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.00016<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000046<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use as a fuel - Industrial

**List of use descriptors** : **Identified use name:** Use as a fuel - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC07

**Environmental contributing scenarios** : **General exposures -** ERC07

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16
**Bulk transfers -** PROC08b
**Drum/batch transfers -** PROC08b
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**Use as a fuel -** PROC16
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 5 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 250 kg/day
Regional use tonnage (tonnes/year): 5 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.05
Release fraction to soil from process (initial release prior to RMM): 0
Release fraction to wastewater from process (initial release prior to RMM): 0.00001

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 95 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 9 800 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | Combustion emissions considered in regional exposure assessment.<br>Combustion emissions limited by required exhaust emission controls. |
| **Conditions and measures related to external recovery of waste** | : | This substance is consumed during use and no waste from the substance is generated. |

## Contributing scenario controlling worker exposure for 2: General measures applicable to all activities

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Bulk transfers**

Dedicated facility

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Drum/batch transfers**

Dedicated facility

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Use as a fuel**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

| | | |
|---|---|---|
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |
| **Ventilation control measures** | : | Ensure material transfers are under containment or extract ventilation. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 7.12a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Use as a fuel**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.0000014
Maximum Risk Characterisation Ratios for waste water emissions 0.000025
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

**Environment** : Not available.

**Health** : Not available.

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Functional fluids - Industrial

**List of use descriptors** : **Identified use name:** Functional fluids - Industrial
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC07

**Environmental contributing scenarios** : **General exposures -** ERC07

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09
**Bulk transfers -** PROC01, PROC02
**Drum/batch transfers -** PROC08b
**Filling of articles/equipment -** PROC09
**Filling/preparation of equipment from drums or containers. -** PROC08a
**General exposures (closed systems) -** PROC02
**General exposures (open systems) -** PROC04
**Remanufacture of reject articles -** PROC09
**Equipment maintenance -** PROC08a
**Storage -** PROC01

**Processes and activities covered by the exposure scenario** : Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment including maintenance and related material transfers.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 6 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 300 kg/day
Regional use tonnage (tonnes/year): 6 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.01
Release fraction to soil from process (initial release prior to RMM): 0.001
Release fraction to wastewater from process (initial release prior to RMM): 0.00003

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 0 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 3 300 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Bulk transfers**

Closed systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Transfer via enclosed lines. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Drum/batch transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Filling of articles/equipment**

Closed systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Filling/preparation of equipment from drums or containers.**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: General exposures (closed systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: General exposures (open systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Remanufacture of reject articles**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 10: Equipment maintenance**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 7.13a.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Bulk transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Drum/batch transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Filling of articles/equipment**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 6: Filling/preparation of equipment from drums or containers.**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 7: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: General exposures (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Remanufacture of reject articles**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Equipment maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.0000016
Maximum Risk Characterisation Ratios for waste water emissions 0.000091
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

**Environment** : Not available.

**Health** : Not available.

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in laboratories - Industrial

**List of use descriptors** : **Identified use name:** Use in laboratories - Industrial
**Process Category:** PROC10, PROC15
**Sector of end use:** SU03
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC02, ERC04

**Environmental contributing scenarios** : **General exposures -** ERC02, ERC04

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC10, PROC15
**Laboratory activities -** PROC15
**Cleaning -** PROC10

**Processes and activities covered by the exposure scenario** : Use of the substance within laboratory settings, including material transfers and equipment cleaning

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.7 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 35 kg/day
Regional use tonnage (tonnes/year): 0.7 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.025
Release fraction to soil from process (initial release prior to RMM): 0.0001
Release fraction to wastewater from process (initial release prior to RMM): 0.02

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %
No secondary wastewater treatment required.
Risk from environmental exposure is driven by freshwater sediment.
Treat air emission to provide a typical removal efficiency of: 0 %
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 %

**Organisational measures to prevent/limit release from site** : Do not apply industrial sludge to natural soils.
Prevent discharge of undissolved substance to or recover from onsite wastewater.
Sludge should be incinerated, contained or reclaimed.

| | | |
|---|---|---|
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 4 900 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Cleaning**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Laboratory activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Cleaning**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0000018<br>Maximum Risk Characterisation Ratios for waste water emissions 0.0071<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Industrial**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in rubber production and processing

**List of use descriptors** : **Identified use name:** Use in rubber production and processing
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC13, PROC14, PROC15, PROC21
**Sector of end use:** SU10
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC01, ERC04, ERC06d

**Environmental contributing scenarios** : **General exposures -** ERC01, ERC04, ERC06d

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC13, PROC14, PROC15, PROC21
**Material transfers -** PROC01, PROC02, PROC08b, PROC09
**Bulk weighing -** PROC01, PROC02
**Small scale weighing -** PROC09
**Additive premixing -** PROC03, PROC04, PROC05
**Calendering (including Banburys) -** PROC06
**Pressing uncured rubber blanks -** PROC14
**Tyre build up -** PROC07
**Vulcanisation -** PROC06
**Cooling cured articles -** PROC06
**Production of articles by dipping and pouring -** PROC13
**Finishing operations -** PROC21
**Laboratory activities -** PROC15
**Equipment maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Manufacture of tyres and general rubber articles, including processing of raw (uncured) rubber, handling and mixing of rubber additives, vulcanising, cooling and finishing.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 170 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 8 400 kg/day
Regional use tonnage (tonnes/year): 170 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 20 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

| | | |
|---|---|---|
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.01<br>Release fraction to soil from process (initial release prior to RMM): 0.0001<br>Release fraction to wastewater from process (initial release prior to RMM): 0.0003 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >=0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater sediment.<br>Treat air emission to provide a typical removal efficiency of: 0 %<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >=0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 330 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |

| | | |
|---|---|---|
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Material transfers**

Closed systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Bulk weighing**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Small scale weighing**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Additive premixing**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Calendering (including Banburys)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Pressing uncured rubber blanks**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Tyre build up**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Vulcanisation**

Manual

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Cooling cured articles**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Production of articles by dipping and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 13: Finishing operations**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 14: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 15: Equipment maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 16: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.19.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: Material transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Bulk weighing**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Small scale weighing**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Additive premixing**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Calendering (including Banburys)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Pressing uncured rubber blanks**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Tyre build up**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Vulcanisation**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Cooling cured articles**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Production of articles by dipping and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Finishing operations**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Laboratory activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Equipment maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 16: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.000047
Maximum Risk Characterisation Ratios for waste water emissions 0.026
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

**Environment** : Not available.

**Health** : Not available.

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in coatings - Professional

**List of use descriptors** : **Identified use name:** Use in coatings - Professional
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC15, PROC19
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC15, PROC19
**General exposures (closed systems) -** PROC01, PROC02
**Filling/preparation of equipment from drums or containers. -** PROC02
**Preparation of material for application -** PROC03, PROC05
**Film formation - air drying -** PROC04
**Material transfers -** PROC08a, PROC08b
**Roller, spreader, flow application -** PROC10
**Manual spraying -** PROC11
**Dipping, immersion and pouring -** PROC13
**Laboratory activities -** PROC15
**Hand application - fingerpaints, pastels, adhesives -** PROC19

**Processes and activities covered by the exposure scenario** : Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.045 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.12 kg/day
Regional use tonnage (tonnes/year): 90 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.98
Release fraction to soil from process (initial release prior to RMM): 0.01
Release fraction to wastewater from process (initial release prior to RMM): 0.01

| | | |
|---|---|---|
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 4 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

Use in contained systems

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Handle substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Filling/preparation of equipment from drums or containers.**

Use in contained systems

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Handle substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Preparation of material for application**

Use in contained batch processes / Indoor and outdoor use.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Film formation - air drying**

Indoor and outdoor use.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: Material transfers**

Drum/batch transfers / Dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: Roller, spreader, flow application**

Indoor and outdoor use.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Manual spraying**

Indoor and outdoor use.

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Dipping, immersion and pouring**

Indoor and outdoor use.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Organisational measures to prevent/limit releases, dispersion and exposure** | : | Avoid manual contact with wet work pieces. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Hand application - fingerpaints, pastels, adhesives**

Indoor and outdoor use.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

**Exposure assessment (environment):** : Hydrocarbon Block Method (Petrorisk)

**Exposure estimation and reference to its source** : ESVOC SPERC 8.3b.v1

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Preparation of material for application**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Film formation - air drying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Material transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Roller, spreader, flow application**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Manual spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Dipping, immersion and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Laboratory activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 12: Hand application - fingerpaints, pastels, adhesives**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000013<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000031<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in cleaning agents - Professional

**List of use descriptors** : **Identified use name:** Use in cleaning agents - Professional
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC19
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC19
**Filling/preparation of equipment from drums or containers. -** PROC08a, PROC08b
**Automated process with (semi) closed systems -** PROC02, PROC03
**Semi-automated process. (e.g. Semi-automatic application of floor care and maintenance products) -** PROC04
**Dipping, immersion and pouring -** PROC13
**Cleaning with low-pressure washers -** PROC10
**Cleaning with high pressure washers -** PROC11
**Surface cleaning -** PROC10
**Ad hoc manual application via trigger sprays, dipping, etc. -** PROC10
**Application of cleaning products in closed systems -** PROC04
**Cleaning of medical devices -** PROC04
**Storage -** PROC01

**Processes and activities covered by the exposure scenario** : Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand).

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 0.15 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.42 kg/day
Regional use tonnage (tonnes/year): 300 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.02
Release fraction to soil from process (initial release prior to RMM): 0
Release fraction to wastewater from process (initial release prior to RMM): 0.000001

| | | |
|---|---|---|
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 21 000 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: Filling/preparation of equipment from drums or containers.**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Automated process with (semi) closed systems**

Use in contained systems / Drum/batch transfers

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Semi-automated process. (e.g. Semi-automatic application of floor care and maintenance products)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Dipping, immersion and pouring**

Manual Surface cleaning

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: Cleaning with low-pressure washers**

Rolling, Brushing / No spraying

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: Cleaning with high pressure washers**

Spraying / Indoor and outdoor use.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Surface cleaning**

Manual / Spraying

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 10: Ad hoc manual application via trigger sprays, dipping, etc.**

Rolling, Brushing

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 11: Application of cleaning products in closed systems**

Outdoor

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 12: Cleaning of medical devices**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 13: Storage**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.4b.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Filling/preparation of equipment from drums or containers.**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Automated process with (semi) closed systems**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Semi-automated process. (e.g. Semi-automatic application of floor care and maintenance products)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 6: Dipping, immersion and pouring**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 7: Cleaning with low-pressure washers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 8: Cleaning with high pressure washers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 9: Surface cleaning**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 10: Ad hoc manual application via trigger sprays, dipping, etc.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Application of cleaning products in closed systems**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Cleaning of medical devices**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.000001
Maximum Risk Characterisation Ratios for waste water emissions 0.00002
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

**Environment** : Not available.

**Health** : Not available.

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Lubricants - Professional (Low release)

**List of use descriptors** :
**Identified use name:** Lubricants - Professional (Low release)
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC09a, ERC09b

**Environmental contributing scenarios** :
**General exposures -** ERC09a, ERC09b

**Health Contributing scenarios** :
**General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**Operation of equipment containing engine oils and similar -** PROC20
**General exposures (open systems) -** PROC04
**Bulk transfers -** PROC08b
**Filling/preparation of equipment from drums or containers. -** PROC08a, PROC08b
**Operation and lubrication of high energy open equipment -** PROC17, PROC18
**Maintenance (of larger plant items) and machine set-up. -** PROC08b
**Maintenance of small items -** PROC08a
**Engine lubricant service -** PROC09
**Roller application or brushing of adhesive and other coating -** PROC10
**Spraying -** PROC11
**Treatment by dipping and pouring -** PROC13
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** :
Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** :
Annual site tonnage (tonnes/day): 0.0025 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 365 kg/day
Regional use tonnage (tonnes/year): 5 tonnes/year

**Frequency and duration of use** :
Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** :
Local freshwater dilution factor: 10
Local marine water dilution factor: 100

| | | |
|---|---|---|
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.01<br>Release fraction to soil from process (initial release prior to RMM): 0.01<br>Release fraction to wastewater from process (initial release prior to RMM): 0.01 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 $m^3$/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 340 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Handle substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Operation of equipment containing engine oils and similar**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: General exposures (open systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Bulk transfers**

Dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: Filling/preparation of equipment from drums or containers.**

Dedicated facility / Non-dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: Operation and lubrication of high energy open equipment**

Indoor and outdoor use.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Maintenance (of larger plant items) and machine set-up.**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Maintenance of small items**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Engine lubricant service**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Roller application or brushing of adhesive and other coating**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 13: Spraying**

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

| | |
|---|---|
| **Other operational conditions affecting worker exposure** | : Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | |
|---|---|
| **Advice on general occupational hygiene** | : Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 14: Treatment by dipping and pouring**

| | |
|---|---|
| **Product characteristics** | : Liquid |
| **Concentration of substance in mixture or article** | : Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | |
|---|---|
| **Advice on general occupational hygiene** | : Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 15: Storage**

| | |
|---|---|
| **Product characteristics** | : Liquid |
| **Concentration of substance in mixture or article** | : Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | |
|---|---|
| **Advice on general occupational hygiene** | : Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | |
|---|---|
| **Website:** | : Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | |
|---|---|
| **Exposure assessment (environment):** | : Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : ESVOC SPERC 9.6b.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | |
|---|---|
| **Exposure assessment (human):** | : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : Not available. |

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

| | |
|---|---|
| **Exposure assessment (human):** | : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : Not available. |

**Exposure estimation and reference to its source - Workers: 4: Operation of equipment containing engine oils and similar**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: General exposures (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Operation and lubrication of high energy open equipment**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Maintenance (of larger plant items) and machine set-up.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Maintenance of small items**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Engine lubricant service**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Treatment by dipping and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.000001
Maximum Risk Characterisation Ratios for waste water emissions 0.00002
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

**Environment** : Not available.

**Health** : Not available.

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Lubricants - Professional (high release)

**List of use descriptors** : **Identified use name:** Lubricants - Professional (high release)
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**Operation of equipment containing engine oils and similar -** PROC20
**General exposures (open systems) -** PROC04
**Bulk transfers -** PROC08b
**Filling/preparation of equipment from drums or containers. -** PROC08a, PROC08b
**Operation and lubrication of high energy open equipment -** PROC17, PROC18
**Maintenance (of larger plant items) and machine set-up. -** PROC08b
**Maintenance of small items -** PROC08a
**Engine lubricant service -** PROC09
**Roller application or brushing of adhesive and other coating -** PROC10
**Spraying -** PROC11
**Treatment by dipping and pouring -** PROC13
**Storage -** PROC01, PROC02
**Drum/batch transfers -** PROC08a

**Processes and activities covered by the exposure scenario** : Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 0.0025 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.0068 kg/day
Regional use tonnage (tonnes/year): 5 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

| | | |
|---|---|---|
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.6<br>Release fraction to soil from process (initial release prior to RMM): 0.05<br>Release fraction to wastewater from process (initial release prior to RMM): 0.05 |
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 300 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |

| | | |
|---|---|---|
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Operation of equipment containing engine oils and similar**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: General exposures (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: Bulk transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Filling/preparation of equipment from drums or containers.**

Dedicated facility / Non-dedicated facility

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Operation and lubrication of high energy open equipment**

Indoor and outdoor use.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Maintenance (of larger plant items) and machine set-up.**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 10: Maintenance of small items**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 11: Engine lubricant service**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 12: Roller application or brushing of adhesive and other coating**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 13: Spraying**

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 14: Treatment by dipping and pouring**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 15: Storage**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Store substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 16: Drum/batch transfers**

Non-dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

## Section 3 - Exposure estimation and reference to its source

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1: General exposures**

**Exposure assessment (environment):** : Hydrocarbon Block Method (Petrorisk)

**Exposure estimation and reference to its source** : ESVOC SPERC 8.10b.v1, ESVOC SPERC 8.6c.v1

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Operation of equipment containing engine oils and similar**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: General exposures (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Operation and lubrication of high energy open equipment**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Maintenance (of larger plant items) and machine set-up.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Maintenance of small items**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Engine lubricant service**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 13: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 14: Treatment by dipping and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 15: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 16: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.0000035
Maximum Risk Characterisation Ratios for waste water emissions 0.000023
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then

users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in metal working fluids/rolling oils - Professional

**List of use descriptors** : **Identified use name:** Use in metal working fluids/rolling oils - Professional
**Process Category:** PROC01, PROC02, PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC17
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**Bulk transfers -** PROC08b
**Filling/preparation of equipment from drums or containers. -** PROC05, PROC08a, PROC08b, PROC09
**Process sampling -** PROC08b
**Metal machining operations -** PROC17
**Roller application or brushing of adhesive and other coating -** PROC10
**Spraying -** PROC11
**Treatment by dipping and pouring -** PROC13
**Equipment cleaning and maintenance -** PROC08a, PROC08b
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Covers the use in formulated MWFs including transfer operations, open and contained cutting/machining activities, automated and manual application of corrosion protections, draining and working on contaminated/reject articles, and disposal of waste oils.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 0.00053 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.0014 kg/day
Regional use tonnage (tonnes/year): 1.1 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.6
Release fraction to soil from process (initial release prior to RMM): 0.05
Release fraction to wastewater from process (initial release prior to RMM): 0.05

| | | |
|---|---|---|
| **Technical conditions and measures at process level (source) to prevent release** | : | Common practices vary across sites thus conservative process release estimates used. |
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 70 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: General exposures (closed systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Handle substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Bulk transfers**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Filling/preparation of equipment from drums or containers.**

Dedicated facility / Non-dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Process sampling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Metal machining operations**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Roller application or brushing of adhesive and other coating**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Spraying**

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Treatment by dipping and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Equipment cleaning and maintenance**

Dedicated facility / Non-dedicated facility

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 12: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.7c.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Process sampling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Metal machining operations**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Treatment by dipping and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 12: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000001<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00002<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use as binders and release agents - Professional

**List of use descriptors** : **Identified use name:** Use as binders and release agents - Professional
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC06, PROC08a, PROC08b, PROC10, PROC11, PROC14
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC04, PROC06, PROC08a, PROC08b, PROC10, PROC11, PROC14
**Material transfers -** PROC01, PROC02, PROC03
**Drum/batch transfers -** PROC08b
**Mixing operations (closed systems) -** PROC03
**Mixing operations (open systems) -** PROC04
**Mould forming -** PROC14
**Casting operations -** PROC06
**Spraying -** PROC11
**Roller application or brushing of adhesive and other coating -** PROC10
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 0.0021 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.0056 kg/day
Regional use tonnage (tonnes/year): 4.1 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.95
Release fraction to soil from process (initial release prior to RMM): 0.025
Release fraction to wastewater from process (initial release prior to RMM): 0.025

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 270 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: Material transfers**

Closed systems

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Transfer via enclosed lines.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Drum/batch transfers**

Non-dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Mixing operations (closed systems)**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Mixing operations (open systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Mould forming**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Casting operations**

Open systems

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Operation is carried out at elevated temperature (> 20°C above ambient temperature) |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Spraying**

Machine / Manual

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 10: Roller application or brushing of adhesive and other coating**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 11: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.10b.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Material transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Drum/batch transfers**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 5: Mixing operations (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Mixing operations (open systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Mould forming**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Casting operations**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Spraying**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 10: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 11: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions 0.0000015
Maximum Risk Characterisation Ratios for waste water emissions 0.000021
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then

users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use as a fuel - Professional

**List of use descriptors** : **Identified use name:** Use as a fuel - Professional
**Process Category:** PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC09a, ERC09b

**Environmental contributing scenarios** : **General exposures -** ERC09a, ERC09b

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC08a, PROC08b, PROC16
**Bulk transfers -** PROC08b
**Drum/batch transfers -** PROC08b
**Refuelling -** PROC08b
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**Use as a fuel -** PROC16
**Equipment cleaning and maintenance -** PROC08a
**Storage -** PROC01

**Processes and activities covered by the exposure scenario** : Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

## Section 2 - Exposure controls

### Contributing scenario controlling environmental exposure for 1: General exposures

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.0025 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.0068 kg/day
Regional use tonnage (tonnes/year): 5 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.01
Release fraction to soil from process (initial release prior to RMM): 0.00001
Release fraction to wastewater from process (initial release prior to RMM): 0.00001

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 350 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | Combustion emissions considered in regional exposure assessment.<br>Combustion emissions limited by required exhaust emission controls. |
| **Conditions and measures related to external recovery of waste** | : | This substance is consumed during use and no waste from the substance is generated. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Bulk transfers**

Dedicated facility

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Drum/batch transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Refuelling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Use as a fuel**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 9: Storage**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Store substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1: General exposures**

**Exposure assessment (environment):** : Hydrocarbon Block Method (Petrorisk)

**Exposure estimation and reference to its source** : ESVOC SPERC 9.12b.v1

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: Bulk transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Refuelling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Use as a fuel**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Storage**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000001<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00002<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Functional fluids - Professional

**List of use descriptors** : **Identified use name:** Functional fluids - Professional
**Process Category:** PROC01, PROC02, PROC03, PROC08a, PROC09, PROC20
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC09a, ERC09b

**Environmental contributing scenarios** : **General exposures -** ERC09a, ERC09b

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC03, PROC08a, PROC09, PROC20
**Drum/batch transfers -** PROC08a
**Transfer from/pouring from containers -** PROC09
**Filling/preparation of equipment from drums or containers. -** PROC09
**General exposures (closed systems) -** PROC01, PROC02, PROC03
**Operation of equipment containing engine oils and similar -** PROC20
**Remanufacture of reject articles -** PROC09
**Equipment maintenance -** PROC08a
**Storage -** PROC01, PROC02

**Processes and activities covered by the exposure scenario** : Use as functional fluids e.g. cable oils, transfer oils, insulators, refrigerants, hydraulic fluids in closed professional equipment including incidental exposures during maintenance and related material transfers.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.002 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.0055 kg/day
Regional use tonnage (tonnes/year): 4 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.05
Release fraction to soil from process (initial release prior to RMM): 0.025
Release fraction to wastewater from process (initial release prior to RMM): 0.025

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 260 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Drum/batch transfers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Transfer from/pouring from containers**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 5: Filling/preparation of equipment from drums or containers.**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 6: General exposures (closed systems)**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |
| **Technical conditions and measures at process level (source) to prevent release** | : | Handle substance within a closed system. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 7: Operation of equipment containing engine oils and similar**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 8: Remanufacture of reject articles**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 9: Equipment maintenance**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 10: Storage**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Technical conditions and measures at process level (source) to prevent release** : Store substance within a closed system.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

## Section 3 - Exposure estimation and reference to its source

**Website:** : Not applicable.

**Exposure estimation and reference to its source - Environment: 1: General exposures**

**Exposure assessment (environment):** : Hydrocarbon Block Method (Petrorisk)

**Exposure estimation and reference to its source** : ESVOC SPERC 9.13b.v1

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 3: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Transfer from/pouring from containers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Filling/preparation of equipment from drums or containers.**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: General exposures (closed systems)**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Operation of equipment containing engine oils and similar**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Remanufacture of reject articles**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 9: Equipment maintenance**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 10: Storage**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0000014<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000021<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Professional**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Road and construction applications

**List of use descriptors** : **Identified use name:** Road and construction applications
**Process Category:** PROC01, PROC02, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08d, ERC08f

**Environmental contributing scenarios** : **General exposures -** ERC08d, ERC08f

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC01, PROC02, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13
**Drum/batch transfers -** PROC08a, PROC08b
**Roller application or brushing of adhesive and other coating -** PROC10
**Spraying/fogging by machine application -** PROC11
**Dipping, immersion and pouring -** PROC13
**Equipment cleaning and maintenance -** PROC08a
**Drum and small package filling -** PROC09

**Processes and activities covered by the exposure scenario** : Bulk loading (including marine vessel/barge, rail/road car and IBC loading)

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/day): 0.004 tonnes/day
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.011 kg/day
Regional use tonnage (tonnes/year): 8 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.95
Release fraction to soil from process (initial release prior to RMM): 0.01
Release fraction to wastewater from process (initial release prior to RMM): 0.01

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

| | | |
|---|---|---|
| **Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** | : | If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %<br>No secondary wastewater treatment required.<br>Risk from environmental exposure is driven by freshwater.<br>Treat air emission to provide a typical removal efficiency of: Not applicable.<br>Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 % |
| **Organisational measures to prevent/limit release from site** | : | Do not apply industrial sludge to natural soils.<br>Prevent discharge of undissolved substance to or recover from onsite wastewater.<br>Sludge should be incinerated, contained or reclaimed. |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 530 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 3: Drum/batch transfers**

Dedicated facility / Non-dedicated facility

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 4: Roller application or brushing of adhesive and other coating**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100 %.

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Assumes use at not more than 20°C above ambient temperaure.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 5: Spraying/fogging by machine application**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Limit the substance content in the product to 50 %

**Frequency and duration of use/exposure** : Covers daily exposures up to 8 hours (unless stated differently)

**Other operational conditions affecting worker exposure** : Operation is carried out at elevated temperature (> 20°C above ambient temperature)

**Technical conditions and measures at process level (source) to prevent release** : Ensure operation is undertaken outdoors.

**Conditions and measures related to personal protection, hygiene and health evaluation**

**Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented

**Contributing scenario controlling worker exposure for 6: Dipping, immersion and pouring**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 7: Equipment cleaning and maintenance**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 8: Drum and small package filling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 4.4a.v1, ESVOC SPERC 8.15.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Drum/batch transfers**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 4: Roller application or brushing of adhesive and other coating**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 5: Spraying/fogging by machine application**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 6: Dipping, immersion and pouring**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 7: Equipment cleaning and maintenance**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Workers: 8: Drum and small package filling**

**Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

**Environment** : Further details on scaling and control technologies are provided in SPERC factsheet.
Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Maximum Risk Characterization Ratios for air emissions: 0.0000011
Maximum Risk Characterisation Ratios for waste water emissions: 0.000021
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

**Health** : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Available hazard data do not support the need for a DNEL to be established for other health effects.
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.
Risk management measures are based on qualitative risk characterisation.
Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in laboratories - Professional

**List of use descriptors** : **Identified use name:** Use in laboratories - Professional
**Process Category:** PROC10, PROC15
**Sector of end use:** SU22
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a

**Environmental contributing scenarios** : **General exposures -** ERC08a

**Health Contributing scenarios** : **General measures applicable to all activities -** PROC10, PROC15
**Laboratory activities -** PROC15
**Cleaning -** PROC10

**Processes and activities covered by the exposure scenario** : Use of small quantities within laboratory settings, including material transfers and equipment cleaning

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.00035 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 1
Maximum daily site tonnage (kg/day): 0.00096 kg/day
Regional use tonnage (tonnes/year): 0.7 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.5
Release fraction to soil from process (initial release prior to RMM): 0
Release fraction to wastewater from process (initial release prior to RMM): 0.5

**Technical conditions and measures at process level (source) to prevent release** : Common practices vary across sites thus conservative process release estimates used.

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil** : If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: >= 0 %
No secondary wastewater treatment required.
Risk from environmental exposure is driven by freshwater.
Treat air emission to provide a typical removal efficiency of: 0 %
Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: >= 0 %

**Organisational measures to prevent/limit release from site** : Do not apply industrial sludge to natural soils.
Prevent discharge of undissolved substance to or recover from onsite wastewater.
Sludge should be incinerated, contained or reclaimed.

| | | |
|---|---|---|
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 40 kg/day<br>Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 96 % |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances, such as flammability or explosiveness can be controlled by implementing risk management measures at the workplace. It is recommended to follow the Dangerous Substances and Explosion Atmospheres Regulations (DSEAR) and The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations (EPS). Based on the implementation of a selection of handling and storage risk management measures for the identified uses, the risk can be regarded as controlled to an acceptable level.

Use in contained systems. Avoid all possible sources of ignition (spark or flame). - No smoking. Handle in well ventilated area to prevent formation of explosive atmosphere. Use equipment and protective systems approved for flammable substances. Restrict line velocity during pumping to avoid generation of electrostatic discharge. Ground/ bond container and receiving equipment. Use non-sparking tools. Refer to relevant technical standards / EU regulations / national regulations. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting.

**General measures (skin irritants)**

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 3: Laboratory activities**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

**Contributing scenario controlling worker exposure for 4: Cleaning**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers percentage substance in the product up to 100 %. |
| **Frequency and duration of use/exposure** | : | Covers daily exposures up to 8 hours (unless stated differently) |
| **Other operational conditions affecting worker exposure** | : | Assumes use at not more than 20°C above ambient temperaure. |

**Conditions and measures related to personal protection, hygiene and health evaluation**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Assumes a good basic standard of occupational hygiene is implemented |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.17.v1 |

**Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 3: Laboratory activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Workers: 4: Cleaning**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet.<br>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000005<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000024<br>Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.<br>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| **Health** | : | Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.<br>Available hazard data do not support the need for a DNEL to be established for other health effects.<br>Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Risk management measures are based on qualitative risk characterisation.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in coatings - Consumer

**List of use descriptors** : **Identified use name:** Use in coatings - Consumer
**Sector of end use:** SU21
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d
**Market sector by type of chemical product:** PC01, PC04, PC08, PC09a, PC09b, PC09c, PC15, PC18, PC23, PC24, PC31, PC34

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PC01, PC04, PC08, PC09a, PC09b, PC09c, PC15, PC18, PC23, PC24, PC31, PC34
**Glues, hobby use -** PC01
**Glues DIY-use (carpet glue, tile glue, wood parquet glue) -** PC01
**Glue from spray -** PC01
**Sealants -** PC01
**Washing car window -** PC04
**Pouring into radiator -** PC04
**Lock de-icer -** PC04
**Laundry and dish-washing products -** PC08
**Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) -** PC08
**Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) -** PC08
**Waterborne latex wall paint -** PC09a
**Solvent-rich, high-solid, water-borne paint -** PC09a
**Aerosol spray can -** PC09a
**Removers (paint-, glue-, wall paper-, sealant-remover) -** PC09a
**Fillers and putty -** PC09b
**Plasters and floor equalisers -** PC09b
**Modelling clay -** PC09b
**Finger paints -** PC09c
**Non-metal-surface treatment products: Waterborne latex wall paint -** PC15
**Non-metal-surface treatment products: waterborne paint -** PC15
**Non-metal-surface treatment products: aerosol sprays -** PC15
**Non-metal-surface treatment products: Removers -** PC15
**Ink and toners -** PC18
**Polishes, wax / cream (floor, furniture, shoes) -** PC23
**Polishes, spray (furniture, shoes) -** PC23
**Liquid -** PC24
**Pastes -** PC24
**Sprays -** PC24
**Polishes, wax/cream (floor, furniture, shoes) -** PC31
**Polishes, spray (furniture, shoes) -** PC31
**Textile dyes and impregnating products -** PC34

**Processes and activities covered by the exposure scenario** : Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

## Section 2 - Exposure controls

### Contributing scenario controlling environmental exposure for 1: General exposures

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.14 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.0005
Maximum daily site tonnage (kg/day): 0.37 kg/day
Regional use tonnage (tonnes/year): 270 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.985
Release fraction to soil from process (initial release prior to RMM): 0.005
Release fraction to wastewater from process (initial release prior to RMM): 0.01

**Conditions and measures related to municipal sewage treatment plant** : Assumed domestic sewage treatment plant flow: 2 000 m³/day
Estimated substance removal from wastewater via municipal sewage treatment: 96 %
Not applicable as there is no release to wastewater.
Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 9 600 kg/day

**Conditions and measures related to external treatment of waste for disposal** : External treatment and disposal of waste should comply with applicable local and/or national regulations.

**Conditions and measures related to external recovery of waste** : External recovery and recycling of waste should comply with applicable local and/or national regulations.

### Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

**Product characteristics** : Liquid

**Amounts used** : Not applicable.

**Frequency and duration of use/exposure** : Not applicable.

**Other given operational conditions affecting consumers exposure** : Not applicable.

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 3: Glues, hobby use**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, covers use amounts up to 9 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 4: Glues DIY-use (carpet glue, tile glue, wood parquet glue)**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 110 cm²<br>For each use event, covers use amounts up to 6 390 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 1 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 6 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 5: Glue from spray**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, covers use amounts up to 85.05 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 6: Sealants**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, covers use amounts up to 75 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 7: Washing car window**

Anti-freeze and de-icing products

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 1 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 0.5 g<br>Covers use in room size of 34 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use in a one car garage (34 m³) under typical ventilation.<br>Covers exposure up to 0.02 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 8: Pouring into radiator**

Anti-freeze and de-icing products

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 10 % |
| **Amounts used** | : | Covers skin contact area up to 428 cm²<br>For each use event, covers use amounts up to 2 000 g<br>Covers use in room size of 34 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use in a one car garage (34 m³) under typical ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 9: Lock de-icer**

Anti-freeze and de-icing products

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 214.4 cm²
For each use event, covers use amounts up to 4 g
Covers use in room size of 34 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 365 days per year
Covers use in a one car garage (34 m³) under typical ventilation.
Covers exposure up to 0.25 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 10: Laundry and dish-washing products**

Biocidal products (Disinfectants, Pest control)

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 5 %

**Amounts used** : Covers skin contact area up to 857.5 cm²
For each use event, covers use amounts up to 15 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 365 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.5 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 11: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)**

Biocidal products (Disinfectants, Pest control)

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 5 %

**Amounts used** : Covers skin contact area up to 857.5 cm²
For each use event, covers use amounts up to 27 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 128 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.33 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 12: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)**

Biocidal products (Disinfectants, Pest control)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 15 % |
| **Amounts used** | : | Covers skin contact area up to 428 cm²<br>For each use event, covers use amounts up to 35 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 128 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 13: Waterborne latex wall paint**

Coatings and paints, thinners, paint removers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 1.5 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 2 760 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 4 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 14: Solvent-rich, high-solid, water-borne paint**

Coatings and paints, thinners, paint removers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 27.5 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 744 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 15: Aerosol spray can**

Coatings and paints, thinners, paint removers

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 857.5 cm²
For each use event, covers use amounts up to 215 g
Covers use in room size of 34 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 2 days per year
Covers use in a one car garage (34 m³) under typical ventilation.
Covers exposure up to 0.33 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 16: Removers (paint-, glue-, wall paper-, sealant-remover)**

Coatings and paints, thinners, paint removers

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 857.5 cm²
For each use event, covers use amounts up to 491 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 3 days per year
Covers use under typical household ventilation.
Covers exposure up to 2 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 17: Fillers and putty**

Fillers, putties, plasters, modelling clay

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 2 %

**Amounts used** : Covers skin contact area up to 35.73 cm²
For each use event, covers use amounts up to 85 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 12 days per year
Covers use under typical household ventilation.
Covers exposure up to 4 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 18: Plasters and floor equalisers**

Fillers, putties, plasters, modelling clay

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 2 %

**Amounts used** : Covers skin contact area up to 857.5 $cm^2$
For each use event, covers use amounts up to 13 800 g
Covers use in room size of 20 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 12 days per year
Covers use under typical household ventilation.
Covers exposure up to 2 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 19: Modelling clay**

Fillers, putties, plasters, modelling clay

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 1 %

**Amounts used** : Covers skin contact area up to 254.4 $cm^2$
For each use event, covers use amounts up to 13 800 g
For each use event, assumes swallowed amount of 1 g
Covers use in room size of 20 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 365 days per year
Covers use under typical household ventilation.
Covers exposure up to 6 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 20: Finger paints**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

| | | |
|---|---|---|
| **Amounts used** | : | Covers skin contact area up to 254.4 cm²<br>For each use event, covers use amounts up to 13 800 g<br>For each use event, assumes swallowed amount of 1.35 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 6 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 21: Non-metal-surface treatment products: Waterborne latex wall paint**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 1.5 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 2 760 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 4 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 22: Non-metal-surface treatment products: waterborne paint**

Solvent-rich, high-solid, water-borne paint

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 27.5 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 744 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 23: Non-metal-surface treatment products: aerosol sprays**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 $cm^2$<br>For each use event, covers use amounts up to 215 g<br>Covers use in room size of 34 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 2 days per year<br>Covers use in a one car garage (34 $m^3$) under typical ventilation.<br>Covers exposure up to 0.33 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 24: Non-metal-surface treatment products: Removers**

Removers (paint-, glue-, wall paper-, sealant-remover)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 $cm^2$<br>For each use event, covers use amounts up to 491 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 3 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 25: Ink and toners**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 10 % |
| **Amounts used** | : | Covers skin contact area up to 71.4 $cm^2$<br>For each use event, covers use amounts up to 40 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 26: Polishes, wax / cream (floor, furniture, shoes)**

Leather treatment products / Impregnation agent / Tanning of leather. / Leather finishing.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 430 cm²
For each use event, covers use amounts up to 56 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 29 days per year
Covers use under typical household ventilation.
Covers exposure up to 1.23 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 27: Polishes, spray (furniture, shoes)**

Leather treatment products / Impregnation agent / Tanning of leather. / Leather finishing.

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 430 cm²
For each use event, covers use amounts up to 56 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 8 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.33 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 28: Liquid**

Lubricants, greases, release products

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 100 %

**Amounts used** : Covers skin contact area up to 468 cm²
For each use event, covers use amounts up to 2 200 g
Covers use in room size of 34 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 4 days per year
Covers use in a one car garage (34 m³) under typical ventilation.
Covers exposure up to 0.17 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 29: Pastes**

Lubricants, greases, release products

| | | |
|---|---|---|
| **Product characteristics** | : | Paste. |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 20 % |
| **Amounts used** | : | Covers skin contact area up to 468 cm²<br>For each use event, covers use amounts up to 34 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 10 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 30: Sprays**

Lubricants, greases, release products

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 73 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 31: Polishes, wax/cream (floor, furniture, shoes)**

Polishes and wax blends

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 430 cm²<br>For each use event, covers use amounts up to 142 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 29 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1.23 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 32: Polishes, spray (furniture, shoes)**

Polishes and wax blends

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 430 cm²<br>For each use event, covers use amounts up to 35 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 8 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.33 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 33: Textile dyes and impregnating products**

Bleaching aid. / Other processing aids

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 10 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 115 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.3c.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 3: Glues, hobby use**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 4: Glues DIY-use (carpet glue, tile glue, wood parquet glue)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 5: Glue from spray**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 6: Sealants**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 7: Washing car window**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 8: Pouring into radiator**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 9: Lock de-icer**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 10: Laundry and dish-washing products**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 11: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 12: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 13: Waterborne latex wall paint**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 14: Solvent-rich, high-solid, water-borne paint**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 15: Aerosol spray can**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 16: Removers (paint-, glue-, wall paper-, sealant-remover)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 17: Fillers and putty**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 18: Plasters and floor equalisers**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 19: Modelling clay**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 20: Finger paints**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 21: Non-metal-surface treatment products: Waterborne latex wall paint**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 22: Non-metal-surface treatment products: waterborne paint**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 23: Non-metal-surface treatment products: aerosol sprays**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 24: Non-metal-surface treatment products: Removers**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 25: Ink and toners**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 26: Polishes, wax / cream (floor, furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 27: Polishes, spray (furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 28: Liquid**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 29: Pastes**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 30: Sprays**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 31: Polishes, wax/cream (floor, furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 32: Polishes, spray (furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 33: Textile dyes and impregnating products**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000038<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000038 |
| **Health** | : | Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use in cleaning agents - Consumer

**List of use descriptors** : **Identified use name:** Use in cleaning agents - Consumer
**Sector of end use:** SU21
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08b
**Market sector by type of chemical product:** PC03, PC04, PC08, PC09a, PC09b, PC09c, PC24, PC35, PC38

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08b

**Health Contributing scenarios** : **General measures applicable to all activities -** PC03, PC04, PC08, PC09a, PC09b, PC09c, PC24, PC35, PC38
**Air care, instant action (aerosol sprays) -** PC03
**Air care, continuous action (solid and liquid) -** PC03
**Washing car window -** PC04
**Pouring into radiator -** PC04
**Lock de-icer -** PC04
**Laundry and dish-washing products -** PC08
**Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) -** PC08
**Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) -** PC08
**Waterborne latex wall paint -** PC09a
**Solvent-rich, high-solid, water-borne paint -** PC09a
**Aerosol spray can -** PC09a
**Removers (paint-, glue-, wall paper-, sealant-remover) -** PC09a
**Fillers and putty -** PC09b
**Plasters and floor equalisers -** PC09b
**Modelling clay -** PC09b
**Finger paints -** PC09c
**Liquid -** PC24
**Pastes -** PC24
**Sprays -** PC24
**Laundry and dish washing products -** PC35
**Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners ) -** PC35
**Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) -** PC35
**Welding and soldering products, flux products -** PC38
**Air care, instant action (aerosol sprays) -** PC03
**Air care, continuous action (solid and liquid) -** PC03

**Processes and activities covered by the exposure scenario** : Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

| | | |
|---|---|---|
| **Product characteristics** | : | Predominantly hydrophobic<br>Substance is complex UVCB. |
| **Amounts used** | : | Annual site tonnage (tonnes/year): 0.01 tonnes/year<br>Fraction of EU tonnage used in region: 0.1<br>Fraction of Regional tonnage used locally: 0.0005<br>Maximum daily site tonnage (kg/day): 0.027 kg/day<br>Regional use tonnage (tonnes/year): 20 tonnes/year |
| **Frequency and duration of use** | : | Continuous release<br>Emission days (days per year): 365 days per year |
| **Environment factors not influenced by risk management** | : | Local freshwater dilution factor: 10<br>Local marine water dilution factor: 100 |
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.95<br>Release fraction to soil from process (initial release prior to RMM): 0.025<br>Release fraction to wastewater from process (initial release prior to RMM): 0.025 |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 m³/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 1 100 kg/day |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Amounts used** | : | Not applicable. |
| **Frequency and duration of use/exposure** | : | Not applicable. |
| **Other given operational conditions affecting consumers exposure** | : | Not applicable. |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 3: Air care, instant action (aerosol sprays)**

Air care products / Excipient only

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 0.1 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 4 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.25 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 4: Air care, continuous action (solid and liquid)**

Air care products / Excipient only

| | | |
|---|---|---|
| **Product characteristics** | : | Solids and liquids |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 10 % |
| **Amounts used** | : | Covers skin contact area up to 35.7 cm²<br>For each use event, covers use amounts up to 0.48 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 8 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 5: Washing car window**

Anti-freeze and de-icing products

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 1 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 0.5 g<br>Covers use in room size of 34 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use in a one car garage (34 m³) under typical ventilation.<br>Covers exposure up to 0.02 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 6: Pouring into radiator**

Anti-freeze and de-icing products

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 10 % |
| **Amounts used** | : | Covers skin contact area up to 428 cm²<br>For each use event, covers use amounts up to 2 000 g<br>Covers use in room size of 34 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use in a one car garage (34 m³) under typical ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 7: Lock de-icer**

Anti-freeze and de-icing products

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 214.4 cm²<br>For each use event, covers use amounts up to 4 g<br>Covers use in room size of 34 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use in a one car garage (34 m³) under typical ventilation.<br>Covers exposure up to 0.25 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 8: Laundry and dish-washing products**

Biocidal products (Disinfectants, Pest control)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 5 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 15 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.5 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 9: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)**

Biocidal products (Disinfectants, Pest control)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 5 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 27 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 128 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.33 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 10: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)**

Biocidal products (Disinfectants, Pest control)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 15 % |
| **Amounts used** | : | Covers skin contact area up to 428 cm²<br>For each use event, covers use amounts up to 35 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 128 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 11: Waterborne latex wall paint**

Coatings and paints, thinners, paint removers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 1.5 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 2 760 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 4 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 12: Solvent-rich, high-solid, water-borne paint**

Coatings and paints, thinners, paint removers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 27.5 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 744 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2.2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 13: Aerosol spray can**

Coatings and paints, thinners, paint removers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 215 g<br>Covers use in room size of 34 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 2 days per year<br>Covers use in a one car garage (34 m³) under typical ventilation.<br>Covers exposure up to 0.33 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 14: Removers (paint-, glue-, wall paper-, sealant-remover)**

Coatings and paints, thinners, paint removers

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 491 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 3 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 15: Fillers and putty**

Fillers, putties, plasters, modelling clay

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 2 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 $cm^2$<br>For each use event, covers use amounts up to 85 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 12 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 16: Plasters and floor equalisers**

Fillers, putties, plasters, modelling clay

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 2 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 $cm^2$<br>For each use event, covers use amounts up to 13 800 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 12 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 17: Modelling clay**

Fillers, putties, plasters, modelling clay

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 1 % |
| **Amounts used** | : | Covers skin contact area up to 254.4 $cm^2$<br>For each use event, covers use amounts up to 13 800 g<br>For each use event, assumes swallowed amount of 1 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 8 hour(s) |

| | | |
|---|---|---|
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 18: Finger paints**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 254.4 $cm^2$<br>For each use event, covers use amounts up to 13 800 g<br>For each use event, assumes swallowed amount of 1.35 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 8 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 19: Liquid**

Lubricants, greases, release products

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 100 % |
| **Amounts used** | : | Covers skin contact area up to 468 $cm^2$<br>For each use event, covers use amounts up to 2 200 g<br>Covers use in room size of 34 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 4 days per year<br>Covers use in a one car garage (34 $m^3$) under typical ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 20: Pastes**

Lubricants, greases, release products

| | | |
|---|---|---|
| **Product characteristics** | : | Paste. |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 20 % |
| **Amounts used** | : | Covers skin contact area up to 468 $cm^2$<br>For each use event, covers use amounts up to 34 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 10 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |

| | | |
|---|---|---|
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 21: Sprays**

Lubricants, greases, release products

| | | |
|---|---|---|
| **Product characteristics** | : | Spray |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 428.75 cm²<br>For each use event, covers use amounts up to 73 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 22: Laundry and dish washing products**

Washing and cleaning products (including solvent based products)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 5 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 15 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.5 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 23: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners )**

Washing and cleaning products (including solvent based products)

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 5 % |
| **Amounts used** | : | Covers skin contact area up to 857.5 cm²<br>For each use event, covers use amounts up to 27 g<br>Covers use in room size of 20 m³ |

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 128 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.33 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 24: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)**

Washing and cleaning products (including solvent based products)

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 15 %

**Amounts used** : Covers skin contact area up to 428 $cm^2$
For each use event, covers use amounts up to 35 g
Covers use in room size of 20 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 128 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.17 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 25: Welding and soldering products, flux products**

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 20 %

**Amounts used** : Covers skin contact area up to 857.5 $cm^2$
For each use event, covers use amounts up to 12 g
Covers use in room size of 20 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 365 days per year
Covers use under typical household ventilation.
Covers exposure up to 1 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 26: Air care, instant action (aerosol sprays)**

Air care products

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 857.5 $cm^2$
For each use event, covers use amounts up to 0.5 g
Covers use in room size of 20 $m^3$

| | | |
|---|---|---|
| **Frequency and duration of use/exposure** | : | Covers use up to 4 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.25 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 27: Air care, continuous action (solid and liquid)**

Air care products

| | | |
|---|---|---|
| **Product characteristics** | : | Solids and liquids |
| **Amounts used** | : | Covers skin contact area up to 35.7 $cm^2$<br>For each use event, covers use amounts up to 0.48 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 8 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.4c.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 3: Air care, instant action (aerosol sprays)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 4: Air care, continuous action (solid and liquid)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 5: Washing car window**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 6: Pouring into radiator**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 7: Lock de-icer**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 8: Laundry and dish-washing products**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 9: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 10: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 11: Waterborne latex wall paint**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 12: Solvent-rich, high-solid, water-borne paint**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 13: Aerosol spray can**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 14: Removers (paint-, glue-, wall paper-, sealant-remover)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 15: Fillers and putty**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 16: Plasters and floor equalisers**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 17: Modelling clay**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 18: Finger paints**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 19: Liquid**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 20: Pastes**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 21: Sprays**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 22: Laundry and dish washing products**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 23: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners )**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 24: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 25: Welding and soldering products, flux products**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 26: Air care, instant action (aerosol sprays)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 27: Air care, continuous action (solid and liquid)**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0000071<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000026 |
| **Health** | : | Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Lubricants - Consumer (Low release)

**List of use descriptors** : **Identified use name:** Lubricants - Consumer (Low release)
**Sector of end use:** SU21
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC09a, ERC09b
**Market sector by type of chemical product:** PC01, PC24, PC31

**Environmental contributing scenarios** : **General exposures -** ERC09a, ERC09b

**Health Contributing scenarios** : **General measures applicable to all activities -** PC01, PC24, PC31
**Glues, hobby use -** PC01
**Glues DIY-use (carpet glue, tile glue, wood parquet glue) -** PC01
**Glue from spray -** PC01
**Sealants -** PC01
**Liquids -** PC24
**Pastes -** PC24
**Sprays -** PC24
**Polishes, wax/cream (floor, furniture, shoes) -** PC31
**Polishes, spray (furniture, shoes) -** PC31

**Processes and activities covered by the exposure scenario** : Covers the consumer use of formulated lubricants in closed and open systems including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.002 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.0005
Maximum daily site tonnage (kg/day): 0.0055 kg/day
Regional use tonnage (tonnes/year): 4 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.01
Release fraction to soil from process (initial release prior to RMM): 0.01
Release fraction to wastewater from process (initial release prior to RMM): 0.01

**Conditions and measures related to municipal sewage treatment plant** : Assumed domestic sewage treatment plant flow: 2 000 m³/day
Estimated substance removal from wastewater via municipal sewage treatment: 96 %
Not applicable as there is no release to wastewater.
Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow ]: 270 kg/day

| | | |
|---|---|---|
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Amounts used** | : | Not applicable. |
| **Frequency and duration of use/exposure** | : | Not applicable. |
| **Other given operational conditions affecting consumers exposure** | : | Not applicable. |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 3: Glues, hobby use**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 $cm^2$<br>For each use event, covers use amounts up to 9 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 4: Glues DIY-use (carpet glue, tile glue, wood parquet glue)**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 110 cm²<br>For each use event, covers use amounts up to 6 390 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 1 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 6 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 5: Glue from spray**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, covers use amounts up to 85.05 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 6: Sealants**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, covers use amounts up to 75 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 7: Liquids**

Lubricants, greases, release products

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 100 %

**Amounts used** : Covers skin contact area up to 468 $cm^2$
For each use event, covers use amounts up to 2 200 g
Covers use in room size of 34 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 4 days per year
Covers use in a one car garage (34 $m^3$) under typical ventilation.
Covers exposure up to 0.17 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 8: Pastes**

Lubricants, greases, release products

**Product characteristics** : Pastes

**Concentration of substance in mixture or article** : Covers concentrations up to 20 %

**Amounts used** : Covers skin contact area up to 468 $cm^2$
For each use event, covers use amounts up to 34 g
Covers use in room size of 20 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 10 days per year
Covers use under typical household ventilation.
Covers exposure up to 4 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 9: Sprays**

Lubricants, greases, release products

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 428.75 $cm^2$
For each use event, covers use amounts up to 73 g
Covers use in room size of 20 $m^3$

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 6 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.17 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 10: Polishes, wax/cream (floor, furniture, shoes)**

Polishes and wax blends

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 430 $cm^2$<br>For each use event, covers use amounts up to 142 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 29 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1.23 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 11: Polishes, spray (furniture, shoes)**

Polishes and wax blends

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 430 $cm^2$<br>For each use event, covers use amounts up to 35 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 8 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.33 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 9.6d.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 3: Glues, hobby use**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 4: Glues DIY-use (carpet glue, tile glue, wood parquet glue)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 5: Glue from spray**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 6: Sealants**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 7: Liquids**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 8: Pastes**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 9: Sprays**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 10: Polishes, wax/cream (floor, furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 11: Polishes, spray (furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000001<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00002 |
| **Health** | : | Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Lubricants - Consumer (high release)

**List of use descriptors** : **Identified use name:** Lubricants - Consumer (high release)
**Sector of end use:** SU21
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC08a, ERC08d
**Market sector by type of chemical product:** PC01, PC24, PC31

**Environmental contributing scenarios** : **General exposures -** ERC08a, ERC08d

**Health Contributing scenarios** : **General measures applicable to all activities -** PC01, PC24, PC31
**Glues, hobby use -** PC01
**Glues DIY-use (carpet glue, tile glue, wood parquet glue) -** PC01
**Glue from spray -** PC01
**Sealants -** PC01
**Liquids -** PC24
**Pastes -** PC24
**Sprays -** PC24
**Polishes, wax/cream (floor, furniture, shoes) -** PC31
**Polishes, spray (furniture, shoes) -** PC31

**Processes and activities covered by the exposure scenario** : Covers the consumer use of formulated lubricants in closed and open systems including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.002 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.0005
Maximum daily site tonnage (kg/day): 0.0055 kg/day
Regional use tonnage (tonnes/year): 4 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.6
Release fraction to soil from process (initial release prior to RMM): 0.05
Release fraction to wastewater from process (initial release prior to RMM): 0.05

**Conditions and measures related to municipal sewage treatment plant** : Assumed domestic sewage treatment plant flow: 2 000 m³/day
Estimated substance removal from wastewater via municipal sewage treatment: 96 %
Not applicable as there is no release to wastewater.
Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow ]: 250 kg/day

| | | |
|---|---|---|
| **Conditions and measures related to external treatment of waste for disposal** | : | Combustion emissions limited by required exhaust emission controls.<br>External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Amounts used** | : | Not applicable. |
| **Frequency and duration of use/exposure** | : | Not applicable. |
| **Other given operational conditions affecting consumers exposure** | : | Not applicable. |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 3: Glues, hobby use**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 $cm^2$<br>For each use event, avoid using a product amount greater than 9 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 4: Glues DIY-use (carpet glue, tile glue, wood parquet glue)**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 110 cm²<br>For each use event, covers use amounts up to 6 390 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 1 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 6 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 5: Glue from spray**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, covers use amounts up to 85.05 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 6 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 4 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 6: Sealants**

Adhesives, sealants

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 30 % |
| **Amounts used** | : | Covers skin contact area up to 35.73 cm²<br>For each use event, avoid using a product amount greater than 75 g<br>Covers use in room size of 20 m³ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 7: Liquids**

Lubricants, greases, release products

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 100 %

**Amounts used** : Covers skin contact area up to 468 cm²
For each use event, covers use amounts up to 2 200 g
Covers use in room size of 34 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 4 days per year
Covers use in a one car garage (34 m³) under typical ventilation.
Covers exposure up to 0.17 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 8: Pastes**

Lubricants, greases, release products

**Product characteristics** : Pastes

**Concentration of substance in mixture or article** : Covers concentrations up to 20 %

**Amounts used** : Covers skin contact area up to 468 cm²
For each use event, covers use amounts up to 34 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 10 days per year
Covers use under typical household ventilation.
Covers exposure up to 4 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

**Contributing scenario controlling consumer exposure for 9: Sprays**

Lubricants, greases, release products

**Product characteristics** : Spray

**Concentration of substance in mixture or article** : Covers concentrations up to 50 %

**Amounts used** : Covers skin contact area up to 428.75 cm²
For each use event, covers use amounts up to 73 g
Covers use in room size of 20 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 6 days per year
Covers use under typical household ventilation.
Covers exposure up to 0.17 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 10: Polishes, wax/cream (floor, furniture, shoes)**

Polishes and wax blends

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 430 $cm^2$<br>For each use event, covers use amounts up to 142 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 29 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 1.23 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 11: Polishes, spray (furniture, shoes)**

Polishes and wax blends

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 50 % |
| **Amounts used** | : | Covers skin contact area up to 430 $cm^2$<br>For each use event, covers use amounts up to 35 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 8 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.33 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.6e.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 3: Glues, hobby use**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 4: Glues DIY-use (carpet glue, tile glue, wood parquet glue)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 5: Glue from spray**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 6: Sealants**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 7: Liquids**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 8: Pastes**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 9: Sprays**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 10: Polishes, wax/cream (floor, furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

**Exposure estimation and reference to its source - Consumers: 11: Polishes, spray (furniture, shoes)**

**Exposure assessment (human):** : ECETOC TRA, consumer

**Exposure estimation and reference to its source** : Not available.

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.0000028<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000022 |
| **Health** | : | Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Use as a fuel - Consumer

**List of use descriptors** : **Identified use name:** Use as a fuel - Consumer
**Sector of end use:** SU21
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC09a, ERC09b
**Market sector by type of chemical product:** PC13

**Environmental contributing scenarios** : **General exposures -** ERC09a, ERC09b

**Health Contributing scenarios** : **General measures applicable to all activities -** PC13
**Liquid: automotive refuelling -** PC13
**Liquid: Scooter refuelling -** PC13
**Liquid: garden equipment - use -** PC13
**Liquid: garden equipment - refuelling -** PC13
**Liquid: home space heater fuel -** PC13

**Processes and activities covered by the exposure scenario** : Covers consumer uses in liquid fuels.

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.015 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.0005
Maximum daily site tonnage (kg/day): 0.04 kg/day
Regional use tonnage (tonnes/year): 29 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.01
Release fraction to soil from process (initial release prior to RMM): 0.00001
Release fraction to wastewater from process (initial release prior to RMM): 0.00001

**Conditions and measures related to municipal sewage treatment plant** : Assumed domestic sewage treatment plant flow: 2 000 m³/day
Estimated substance removal from wastewater via municipal sewage treatment: 96 %
Not applicable as there is no release to wastewater.
Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 2 000 kg/day

**Conditions and measures related to external treatment of waste for disposal** : Combustion emissions considered in regional exposure assessment.
Combustion emissions limited by required exhaust emission controls.

**Conditions and measures related to external recovery of waste** : This substance is consumed during use and no waste from the substance is generated.

## Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

**Product characteristics** : Liquid

**Amounts used** : Not applicable.

**Frequency and duration of use/exposure** : Not applicable.

**Other given operational conditions affecting consumers exposure** : Not applicable.

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

## Contributing scenario controlling consumer exposure for 3: Liquid: automotive refuelling

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 100 %

**Amounts used** : Covers skin contact area up to 210 cm²
For each use event, covers use amounts up to 37 500 g
Covers use in room size of 100 m³

**Frequency and duration of use/exposure** : Covers use up to 1 times per day
Covers use up to 52 days per year
Covers outdoor use.
Covers exposure up to 0.05 hour(s)

**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure

**Conditions and measures related to personal protection and hygiene**

**Advice on general occupational hygiene** : Not applicable.

## Contributing scenario controlling consumer exposure for 4: Liquid: Scooter refuelling

**Product characteristics** : Liquid

**Concentration of substance in mixture or article** : Covers concentrations up to 100 %

**Amounts used** : Covers skin contact area up to 210 cm²
For each use event, covers use amounts up to 3 750 g
Covers use in room size of 100 m³

| | | |
|---|---|---|
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 52 days per year<br>Covers outdoor use.<br>Covers exposure up to 0.03 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 5: Liquid: garden equipment - use**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 100 % |
| **Amounts used** | : | Covers skin contact area up to 420 $cm^2$<br>For each use event, covers use amounts up to 750 g<br>Covers use in room size of 100 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 26 days per year<br>Covers outdoor use.<br>Covers exposure up to 2 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 6: Liquid: garden equipment - refuelling**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 100 % |
| **Amounts used** | : | Covers skin contact area up to 420 $cm^2$<br>For each use event, covers use amounts up to 750 g<br>Covers use in room size of 34 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 26 days per year<br>Covers use in a one car garage (34 $m^3$) under typical ventilation.<br>Covers exposure up to 0.03 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 7: Liquid: home space heater fuel**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 100 % |
| **Amounts used** | : | Covers skin contact area up to 210 $cm^2$<br>For each use event, covers use amounts up to 3 000 g<br>Covers use in room size of 20 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 times per day<br>Covers use up to 365 days per year<br>Covers use under typical household ventilation.<br>Covers exposure up to 0.03 hour(s) |

| | | |
|---|---|---|
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 9.12c.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 3: Liquid: automotive refuelling**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 4: Liquid: Scooter refuelling**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 5: Liquid: garden equipment - use**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 6: Liquid: garden equipment - refuelling**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 7: Liquid: home space heater fuel**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000001<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00002 |
| **Health** | : | Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

**Product definition** : UVCB

**Code** : 1168362

**Product name** : PC FLUIDS EXXSOL DSP 80/110

## Section 1 - Title

**Short title of the exposure scenario** : Functional fluids - Consumer

**List of use descriptors** : **Identified use name:** Functional fluids - Consumer
**Sector of end use:** SU21
**Subsequent service life relevant for that use:** No.
**Environmental Release Category:** ERC09a, ERC09b
**Market sector by type of chemical product:** PC16, PC17

**Environmental contributing scenarios** : **General exposures -** ERC09a, ERC09b

**Health Contributing scenarios** : **General measures applicable to all activities -** PC16, PC17
**Heat transfer fluids -** PC16
**Hydraulic (functional) fluids -** PC17

**Processes and activities covered by the exposure scenario** : Use of sealed items containing functional fluids e.g. transfer oils, hydraulic fluids, refrigerants

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

**Product characteristics** : Predominantly hydrophobic
Substance is complex UVCB.

**Amounts used** : Annual site tonnage (tonnes/year): 0.001 tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of Regional tonnage used locally: 0.0005
Maximum daily site tonnage (kg/day): 0.0027 kg/day
Regional use tonnage (tonnes/year): 2 tonnes/year

**Frequency and duration of use** : Continuous release
Emission days (days per year): 365 days per year

**Environment factors not influenced by risk management** : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

**Other operational conditions of use affecting environmental exposure** : Release fraction to air from process (initial release prior to RMM): 0.05
Release fraction to soil from process (initial release prior to RMM): 0.025
Release fraction to wastewater from process (initial release prior to RMM): 0.025

**Conditions and measures related to municipal sewage treatment plant** : Assumed domestic sewage treatment plant flow: 2 000 m³/day
Estimated substance removal from wastewater via municipal sewage treatment: 96 %
Not applicable as there is no release to wastewater.
Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 130 kg/day

**Conditions and measures related to external treatment of waste for disposal** : External treatment and disposal of waste should comply with applicable local and/or national regulations.

**Conditions and measures related to external recovery of waste** : External recovery and recycling of waste should comply with applicable local and/or national regulations.

**Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Amounts used** | : | Not applicable. |
| **Frequency and duration of use/exposure** | : | Not applicable. |
| **Other given operational conditions affecting consumers exposure** | : | Not applicable. |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 3: Heat transfer fluids**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 100 % |
| **Amounts used** | : | Covers skin contact area up to 468 $cm^2$<br>For each use event, covers use amounts up to 2 200 g<br>Covers use in room size of 34 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 days per year<br>Covers use up to 4 times per day<br>Covers use in a one car garage (34 $m^3$) under typical ventilation.<br>Covers use up to 0.17 hour(s) |
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

**Contributing scenario controlling consumer exposure for 4: Hydraulic (functional) fluids**

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Concentration of substance in mixture or article** | : | Covers concentrations up to 100 % |
| **Amounts used** | : | Covers skin contact area up to 468 $cm^2$<br>For each use event, covers use amounts up to 2 200 g<br>Covers use in room size of 34 $m^3$ |
| **Frequency and duration of use/exposure** | : | Covers use up to 1 days per year<br>Covers use up to 4 times per day<br>Covers use in a one car garage (34 $m^3$) under typical ventilation.<br>Covers use up to 0.17 hour(s) |

| | | |
|---|---|---|
| **Other given operational conditions affecting consumers exposure** | : | Covers use at ambient temperatures.<br>Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 9.13c.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 3: Heat transfer fluids**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

**Exposure estimation and reference to its source - Consumers: 4: Hydraulic (functional) fluids**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | ECETOC TRA, consumer |
| **Exposure estimation and reference to its source** | : | Not available. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000001<br>Maximum Risk Characterisation Ratios for waste water emissions 0.00002 |
| **Health** | : | Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented.<br>Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |

## Annex to the extended Safety Data Sheet (eSDS)

**Consumer**

## Identification of the substance or mixture

| | | |
|---|---|---|
| **Product definition** | : | UVCB |
| **Code** | : | 1168362 |
| **Product name** | : | PC FLUIDS EXXSOL DSP 80/110 |

## Section 1 - Title

| | | |
|---|---|---|
| **Short title of the exposure scenario** | : | Other consumer uses |
| **List of use descriptors** | : | **Identified use name:** Other consumer uses<br>**Sector of end use:** SU21<br>**Subsequent service life relevant for that use:** No.<br>**Environmental Release Category:** ERC08a, ERC08d<br>**Market sector by type of chemical product:** PC28, PC39 |
| **Environmental contributing scenarios** | : | **General exposures -** ERC08a, ERC08d |
| **Health Contributing scenarios** | : | **General measures applicable to all activities -** PC28, PC39 |
| **Processes and activities covered by the exposure scenario** | : | Consumer uses e.g. as a carrier in cosmetics/personal care products, perfumes and fragrances. Note: For cosmetic and personal care products, risk assessment only required for the environment under REACH as human health is covered by alternative legislation. |

## Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: General exposures**

| | | |
|---|---|---|
| **Product characteristics** | : | Predominantly hydrophobic<br>Substance is complex UVCB. |
| **Amounts used** | : | Annual site tonnage (tonnes/year): 0.0028 tonnes/year<br>Fraction of EU tonnage used in region: 0.1<br>Fraction of Regional tonnage used locally: 0.0005<br>Maximum daily site tonnage (kg/day): 0.0075 kg/day<br>Regional use tonnage (tonnes/year): 5.5 tonnes/year |
| **Frequency and duration of use** | : | Continuous release<br>Emission days (days per year): 365 days per year |
| **Environment factors not influenced by risk management** | : | Local freshwater dilution factor: 10<br>Local marine water dilution factor: 100 |
| **Other operational conditions of use affecting environmental exposure** | : | Release fraction to air from process (initial release prior to RMM): 0.95<br>Release fraction to soil from process (initial release prior to RMM): 0.025<br>Release fraction to wastewater from process (initial release prior to RMM): 0.025 |
| **Conditions and measures related to municipal sewage treatment plant** | : | Assumed domestic sewage treatment plant flow: 2 000 $m^3$/day<br>Estimated substance removal from wastewater via municipal sewage treatment: 96 %<br>Not applicable as there is no release to wastewater.<br>Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 350 kg/day |
| **Conditions and measures related to external treatment of waste for disposal** | : | External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| **Conditions and measures related to external recovery of waste** | : | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

**Contributing scenario controlling consumer exposure for 2: General measures applicable to all activities**

**General measures (flammability)**

Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For flammable substances a selection of the following measures need to be implemented to control unintended ignition of flammable substances. These measures are expected to be suitable to prevent minor accidents which might occur during consumer use. Based on the implementation of a selection of handling and storage risk management measures for the identified uses, it is anticipated that there is no immediate concern as the risk should be controlled to an acceptable level. Use only with adequate ventilation. Keep away from sources of ignition - No smoking. Review SDS for additional advice..

**General measures (aspiration)**

The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances can be controlled by implementing risk management measures. For substances classified as H304, the following measures need to be implemented to control the aspiration hazard.

Product safety-related measures: Do not ingest. If swallowed then seek immediate medical assistance. Do not induce vomiting. Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage. Keep lamps filled with this liquid out of the reach of children.

| | | |
|---|---|---|
| **Product characteristics** | : | Liquid |
| **Amounts used** | : | Not applicable. |
| **Frequency and duration of use/exposure** | : | Not applicable. |
| **Other given operational conditions affecting consumers exposure** | : | Not applicable. |

**Conditions and measures related to personal protection and hygiene**

| | | |
|---|---|---|
| **Advice on general occupational hygiene** | : | Not applicable. |

## Section 3 - Exposure estimation and reference to its source

| | | |
|---|---|---|
| **Website:** | : | Not applicable. |

**Exposure estimation and reference to its source - Environment: 1: General exposures**

| | | |
|---|---|---|
| **Exposure assessment (environment):** | : | Hydrocarbon Block Method (Petrorisk) |
| **Exposure estimation and reference to its source** | : | ESVOC SPERC 8.16.v1 |

**Exposure estimation and reference to its source - Consumers: 2: General measures applicable to all activities**

| | | |
|---|---|---|
| **Exposure assessment (human):** | : | Not applicable. |
| **Exposure estimation and reference to its source** | : | Not applicable. |

## Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

| | | |
|---|---|---|
| **Environment** | : | Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.<br>Maximum Risk Characterization Ratios for air emissions 0.000002<br>Maximum Risk Characterisation Ratios for waste water emissions 0.000021 |
| **Health** | : | Not applicable. |

## Additional good practice advice beyond the REACH CSA

| | | |
|---|---|---|
| **Environment** | : | Not available. |
| **Health** | : | Not available. |