

SAFETY DATA SHEET



EXXSOL™ D40 ULB

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

1.1 Product identifier

Product name : EXXSOL™ D40 ULB
EC number : 919-857-5
REACH Registration number
Registration number
01-2119463258-33-0002
01-2119463258-33
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 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 Polymer processing - Industrial Water treatment chemicals - Industrial Mining chemicals Use in coatings - Professional Use in cleaning agents - Professional Use in oil and gas field drilling and production operations - Professional Lubricants - Consumer (Low release) 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 Polymer processing - Professional Manufacture and use of slurry explosives Water treatment chemicals - Professional Use in coatings - Consumer Use in cleaning agents - Consumer Lubricants - Consumer (high release) Use as a fuel - Consumer Functional fluids - Consumer Other consumer uses Water treatment chemicals - Consumer

1.3 Details of the supplier of the safety data sheet

EXXSOL™ D40 ULB

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

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

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

1.4 Emergency telephone number

**National advisory body/
Poison Centre** : (+32)70 245 245

**24 Hour Emergency
Telephone** : +32 2 808 32 37 / +1-703-527-3887 (CHEMTREC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : UVCB

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226

STOT SE 3, H336

Asp. Tox. 1, H304

The product is classified as hazardous according to Regulation (EC) 1272/2008 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 : H226 - Flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H336 - May cause drowsiness or dizziness.

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.
P271 - Use only outdoors or in a well-ventilated area.
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.
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.
P370 + P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

EXXSOL™ D40 ULB

SECTION 2: Hazards identification

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.
Contains	: Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Supplemental label elements	: EUH066 - Repeated exposure may cause skin dryness or cracking.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 3, 40

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	<table><tr><td>PBT</td><td>P</td><td>B</td><td>T</td><td>vPvB</td><td>vP</td><td>vB</td></tr><tr><td>No</td><td>N/A</td><td>N/A</td><td>No</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table>	PBT	P	B	T	vPvB	vP	vB	No	N/A	N/A	No	N/A	N/A	N/A
	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

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	REACH #: 01-2119463258-33 EC: 919-857-5 CAS: -	100	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066 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.

Nota :

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 if irritation occurs.
- 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. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- 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** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.
- 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, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Specific hazards arising from the chemical** : 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.
- 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).

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.

SECTION 6: Accidental release measures

- 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 spilled 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 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. 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

SECTION 7: Handling and storage

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

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	5000 tonnes	50000 tonnes

Storage Temperature : Ambient

Storage Pressure : Ambient

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

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

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

7.3 Specific end use(s)

Recommendations : Not available.

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

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	ExxonMobil (COMPANY) RCP - TWA: 197 ppm (Total Hydrocarbons). Form: Vapour.. RCP - TWA: 1200 mg/m ³ (Total Hydrocarbons). Form: Vapour.

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

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard 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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Result

DNEL - Workers - Long term - Inhalation

871 mg/m³

Effects: Systemic

DNEL - General population - Long term - Dermal

125 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

208 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Oral

125 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

185 mg/m³

Effects: Systemic

PNECs

Not available.

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: safety glasses with side-shields.

Skin protection

SECTION 8: Exposure controls/personal 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.
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

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	: 154 to 193°C (309.2 to 379.4°F) [ASTM D86]
Flash point	: Closed cup: 36°C (96.8°F) [ASTM D-56]
Evaporation rate	: 0.2 (butyl acetate = 1) [Calculated]
Flammability	: Flammable liquids - Category 3
Lower and upper explosion limit	: Lower: 0.7% [Extrapolated] Upper: 6%
Vapour pressure	: 1.5 mm Hg [20 °C] [Calculated]
Relative vapour density	: 5 [Air = 1] [Calculated]
Relative density	: 0.78 [Calculated]
Density	: 0.78 g/cm³ [15°C (59°F)] [ISO 12185]

EXXSOL™ D40 ULB

SECTION 9: Physical and chemical properties

Solubility in water	: Negligible
Partition coefficient n-octanol/ water (log Pow)	: >4 [Estimated]
Auto-ignition temperature	: 237°C (458.6°F) [ASTM E659]
Decomposition temperature	: Not available.
Viscosity	: 1.35 cSt [20 °C] 1.02 cSt [40 °C]
Molecular weight	: 145
<u>Particle characteristics</u>	
Median particle size	: Not applicable.

9.2 Other information

Pour point	: -72°C [ASTM D5950]
Hygroscopic	: No
Coefficient of Thermal Expansion	: 0.00098 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,
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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rat - Oral - LD50 >5000 mg/kg
	Rabbit - Dermal - LD50 >5000 mg/kg
	Rat - Inhalation - LC50 Vapour >5000 mg/m³ [4 hours]

Conclusion/Summary

Inhalation	: Minimally Toxic. Data available. Based on test data for structurally similar materials. 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

SECTION 11: Toxicological information

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 : May dry the skin leading to discomfort and dermatitis. Data available. Based on test data for structurally similar materials. 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

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

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 471 473 474 476 478 479

Carcinogenicity

Conclusion/Summary : Not expected to cause cancer. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 453

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 413 414 415

Specific target organ toxicity (single exposure)

Conclusion/Summary : May cause drowsiness or dizziness. No end point data for material. Based on assessment of the components.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Target organs
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	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 408 413

Aspiration hazard

Product/ingredient name	Result
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	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.

11.2 Information on other hazards

SECTION 11: Toxicological information

11.2.1 Endocrine disrupting properties

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Product : Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. 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, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Acute - NOEL Algae - <i>Pseudokirchneriella subcapitata</i> 100 mg/l [72 hours]
	Acute - EL50 Algae - <i>Pseudokirchneriella subcapitata</i> >1000 mg/l [72 hours]
	Acute - LL50 Fish - <i>Oncorhynchus mykiss</i> >1000 mg/l [96 hours]
	Acute - EL0 daphnia - <i>Daphnia magna</i> 1000 mg/l [48 hours]

Conclusion/Summary

Acute toxicity : Not expected to be harmful to aquatic organisms.
Chronic toxicity : Not expected to demonstrate chronic toxicity to aquatic organisms

12.2 Persistence and degradability

Product/ingredient name	Result
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Ready Biodegradability 80% [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.

Section 12. Ecological information

12.4 Mobility in soil

- Mobility** : Material -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.
- Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

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

- Conclusion/Summary** : The product does not meet the criteria to be considered as a PBT or vPvB.
Regulation (EC) No. 1272/2008
[CLP]

12.6 Endocrine disrupting properties

- Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 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.

The European Waste Catalogue (EWC) code is specific to the waste generating process and waste constituents. Determine the EWC according to the criteria provided in the European Waste Catalogue and the hazardous waste list established by Commission Decision 2000/532/EC, as amended.





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.

- 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.

EXXSOL™ D40 ULB

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID 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
Label(s) / Mark(s)				
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

ADR/RID

: **Hazard identification number** 30
Limited quantity 5 L
Tunnel code (D/E)
F

IMDG

: **Emergency schedules** F-E, S-D
Special provisions 223
Flash point 36 °C C.C.

IATA

: **Quantity limitation** Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.
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 Maritime 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
EU Regulation (EC) No. 1907/2006 (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.

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

SECTION 15: Regulatory information

Other EU regulations

Explosive precursors : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Named substances

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

National regulations

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)	: Not determined.
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.

64742-48-9; 64742-47-8

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.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = 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 according to Regulation (EC) No. 1272/2008 [CLP/GHS]

EXXSOL™ D40 ULB

SECTION 16: Other information

Classification	Justification
Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304	On basis of test data Calculation method Calculation method

Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 5 August 2025

Date of previous issue : 5 August 2025

Version : 2.08

Product code : 1164360

Notice to reader

"The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, ""ExxonMobil"" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest."

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : UVCB
Code : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 (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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: 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 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 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 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: 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 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: 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 temperature.**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):** : Not applicable.**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 : Not applicable.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: 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 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 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 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: 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 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: 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 temperature.
Technical conditions and measures at process level (source) to prevent release	: Apply vessel entry procedures including use of forced supplied air.
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 temperature.
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):	: Not applicable.
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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 tableting, 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, tableting, 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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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 substance within a closed system. 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..

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 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 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 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: 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 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: Batch processes at elevated temperatures

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	: 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 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 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 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: 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 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: 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 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: Transfer from/pouring from containers

Manual / 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 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: 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 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 preparation or articles by tableting, 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 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: 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 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****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 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 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 temperature.
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):	: Not applicable.
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 tableting, 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 tableting, 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 : Not applicable.
Amounts used : Not applicable.
Frequency and duration of use : Not applicable.
Environment factors not influenced by risk management : Not applicable.
Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
Conditions and measures related to external recovery of waste	: Not applicable.
Suitable recovery operations	: Not applicable.

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

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 (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..

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 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 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 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: Film formation - force drying, stoving and other technologies**

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 5: Mixing operations (closed systems)**

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 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: Film formation - air drying**

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 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 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 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: 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 temperature.

Ventilation control measures : Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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 temperature.

Ventilation control measures : Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Non-dedicated facility / 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 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: 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 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: 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 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: 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 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: 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 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 15: Production of preparation or articles by tableting, 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 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 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 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 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 temperature.

Technical conditions and measures to control dispersion from source towards the worker : 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):	: Not applicable.
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 tableting, 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 : Not applicable.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
Conditions and measures related to external recovery of waste	: Not applicable.

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

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 (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..

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 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 3: Bulk transfers

Non-dedicated facility / 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 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: 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 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: 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 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: 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 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 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 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: 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 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: 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 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: 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 temperature.
Ventilation control measures	: Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
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 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: 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 temperature.**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):** : Not applicable.**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 : Not applicable.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Manual applications e.g. brushing, rolling - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
Conditions and measures related to external recovery of waste	: Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: Filling/preparation of equipment from drums or containers.

Non-dedicated facility / 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 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 7: Initial factory fill of equipment

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 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: 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 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: Manual applications e.g. brushing, rolling****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 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: 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 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: 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 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**Personal protection** : Wear suitable gloves tested to EN374.
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.**Contributing scenario controlling worker exposure for 12: Maintenance (of larger plant items) and machine set-up.**

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 13: Maintenance of small items**

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 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: 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 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 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 temperature.

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): : Not applicable.

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: Manual applications e.g. brushing, rolling

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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Manual applications e.g. brushing, rolling - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.

Date of issue/Date of revision : 2/11/2022

60/240

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: Filling/preparation of equipment from drums or containers.

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 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 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 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: 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 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: 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 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: 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 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

Personal protection : Wear suitable gloves tested to EN374.
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.

Contributing scenario controlling worker exposure for 11: Manual applications e.g. brushing, rolling

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 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: 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 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 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 temperature.

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): : Not applicable.

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: Manual applications e.g. brushing, rolling

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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 - PROC03, PROC04
Mould forming - PROC14
Casting operations - PROC06
Spraying - PROC07
Manual spraying - PROC07
Manual applications e.g. brushing, rolling - PROC10
Treatment by dipping and pouring - PROC13
Storage - PROC01, PROC02
Equipment cleaning and maintenance - 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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
Conditions and measures related to external recovery of waste	: Not applicable.

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

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 (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..

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 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 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 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: 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 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**

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 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: 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 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 7: 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 8: Spraying**

Machine

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 temperature.**Ventilation control measures** : Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).**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 temperature.**Ventilation control measures** : Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).**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: Manual applications e.g. brushing, rolling****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 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: 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 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: 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 temperature.

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 13: 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 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

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): : Not applicable.

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

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: 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: 7: 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: 8: 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: 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: Manual applications e.g. brushing, rolling

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: 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: 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.

Exposure estimation and reference to its source - Workers: 13: 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.

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

Environment	: Not applicable.
Health	: Available hazard data do not enable the derivation of a DNEL for dermal irritant 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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 - PROC03, PROC16
Equipment 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: Use as a fuel**

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 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 7: 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 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: 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 temperature.
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):	: Not applicable.
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 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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, PROC03
General exposures (open systems) - PROC04
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, 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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 temperature.

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

Date of issue/Date of revision : 2/10/2022

81/240

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 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: 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 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: Filling/preparation of equipment from drums or containers.

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 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 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 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: 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 : 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: 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 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: 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 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: 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 temperature.

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): : Not applicable.

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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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: 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** - PROC15
Laboratory activities - PROC15

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 : Not applicable.
Amounts used : Not applicable.
Frequency and duration of use : Not applicable.
Environment factors not influenced by risk management : Not applicable.
Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release : Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.
Organisational measures to prevent/limit release from site : Not applicable.
Conditions and measures related to municipal sewage treatment plant : Not applicable.
Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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

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):	: Not applicable.
Exposure estimation and reference to its source	: Not applicable.
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.

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

Environment	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Polymer processing - Industrial

List of use descriptors : **Identified use name:** Polymer processing - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC08a, PROC08b, PROC09, PROC13, PROC14, PROC21
Sector of end use: SU03, SU10
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, PROC06, PROC08a, PROC08b, PROC09, PROC13, PROC14, PROC21
Bulk transfers - PROC01, PROC02, PROC08b
Bulk weighing - PROC01, PROC02
Small scale weighing - PROC09
Additive premixing - PROC03, PROC04, PROC05
Calendering (including Banburys) - PROC06
Production of articles by dipping and pouring - PROC13
Extrusion and masterbatching - PROC14
Injection moulding of articles - PROC14
Finishing operations - PROC21
Equipment maintenance - PROC08a
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario	: Processing of formulated polymers including material transfers, additives handling (e. g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.
--	--

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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 substance within a closed system. 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..

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 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 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 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: Bulk weighing**

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 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: 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 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: 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 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 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: 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 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: Extrusion and masterbatching

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 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: Injection moulding of 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 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: 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 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: 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 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: 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 temperature.
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):	: Not applicable.
Exposure estimation and reference to its source	: ESVOC SPERC 4.21a.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: 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: 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: 9: Extrusion and masterbatching

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: Injection moulding of 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: 11: 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: 12: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Water treatment chemicals - Industrial

List of use descriptors : **Identified use name:** Water treatment chemicals - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC13
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC03, ERC04

Environmental contributing scenarios : **General exposures** - ERC03, ERC04

Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC13
Bulk transfers - PROC02
Drum/batch transfers - PROC08b
General exposures - PROC03, PROC04
Pouring from small containers - PROC13
Equipment maintenance - PROC08a
Storage - PROC01

Processes and activities covered by the exposure scenario	: Covers the use of the substance for the treatment of water at industrial facilities in open and closed systems.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 3: Bulk transfers

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 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: 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 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: General exposures**

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 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: Pouring from small 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 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 7: 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 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: 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 temperature.
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):	: Not applicable.
Exposure estimation and reference to its source	: ESVOC SPERC 3.22a.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

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: Pouring from small 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: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Mining chemicals

List of use descriptors : **Identified use name:** Mining chemicals
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09
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, PROC08a, PROC08b, PROC09
Bulk transfers - PROC02
Drum/batch transfers - PROC08b
Pouring from small containers - PROC09
General exposures - PROC03, PROC05
Phase separation - PROC04
Ion exchange processes - PROC02
Mixing operations (closed systems) - PROC01
Equipment cleaning and maintenance - PROC08a
Storage - PROC01

Processes and activities covered by the exposure scenario	: Covers the use of the substance in extraction processes at mining operations, including material transfers, winning and separation activities, and substance recovery and disposal.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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 substance within a closed system. 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..

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 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 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 temperature.

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

Date of issue/Date of revision : 2/11/2022

102/240

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 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: Pouring from small 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 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: General exposures

Closed systems / 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 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 7: Phase separation

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 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: Ion exchange processes

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 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: 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 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: 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 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: 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 temperature.

Organisational measures to prevent/limit releases, dispersion and exposure : 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): : Not applicable.

Exposure estimation and reference to its source : ESVOC SPERC 4.23.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: Pouring from small 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

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: Phase separation

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: Ion exchange 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: 9: 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: 10: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
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, 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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
Conditions and measures related to external recovery of waste	: Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: 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 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 7: Material transfers

Indoor use / 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 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: 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 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: 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 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

Personal protection : Wear suitable gloves tested to EN374.
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.

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 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: 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 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: 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 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: 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 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: 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 temperature.
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):	: Not applicable.
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.

Exposure estimation and reference to its source - Workers: 13: 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: 14: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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: PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
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** - PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13
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

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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
Conditions and measures related to external recovery of waste	: Not applicable.

Contributing scenario controlling worker exposure for 2: General measures applicable to all 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 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 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 temperature.
Ventilation control measures	: Provide extract ventilation to points where emissions occur.
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
Personal protection	: Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Respiratory protection	: Wear a respirator conforming to EN140 with type A filter or better.

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 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: 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 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: 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 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**Personal protection** : Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.**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 temperature.

Ventilation control measures	: Provide extract ventilation to points where emissions occur.
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
Personal protection	: Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Respiratory protection	: Wear a respirator conforming to EN140 with type A filter or better.
Contributing scenario controlling worker exposure for 8: Cleaning with high pressure washers	
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	: Avoid carrying out operation for more than 1 hour.
Other operational conditions affecting worker exposure	: Assumes use at not more than 20°C above ambient temperature.
Ventilation control measures	: Provide extract ventilation to points where emissions occur.
Organisational measures to prevent/limit releases, dispersion and exposure	: Ensure control measures are regularly inspected and maintained. Clean equipment and the work area every day.
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
Personal protection	: Wear suitable coveralls to prevent exposure to the skin. Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Contributing scenario controlling worker exposure for 9: Surface cleaning	
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 temperature.
Ventilation control measures	: Provide extract ventilation to points where emissions occur.
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
Personal protection	: Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Respiratory protection	: Wear a respirator conforming to EN140 with type A filter or better.

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 temperature.**Ventilation control measures** : Provide extract ventilation to points where emissions occur.**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**Personal protection** : Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.**Respiratory protection** : Wear a respirator conforming to EN140 with type A filter or better.**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 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: 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 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**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): : Not applicable.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Surface cleaning

Exposure assessment (human): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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): : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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):	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
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):	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
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	: Not applicable.
Health	: 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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Use in oil and gas field drilling and production operations - Professional

List of use descriptors : **Identified use name:** Use in oil and gas field drilling and production operations - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08d

Environmental contributing scenarios : **General exposures** - ERC08d

Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b
Bulk transfers - PROC08b
Filling/preparation of equipment from drums or containers. - PROC08b
Drilling mud (re-)formulation; Use in contained batch processes - PROC03
Drill floor operations - PROC04
Operation of solids filtering equipment - PROC04
Cleaning of solids filtering equipment; Non-dedicated facility - PROC08a
Treatment and disposal of filtered solids - PROC03
Process sampling - PROC03
General exposures - PROC01, PROC04
Pouring from small containers - PROC08a
Equipment cleaning and maintenance - PROC08a
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario	: Oil field well drilling operations (including drilling muds and well cleaning) including material transfers, on-site formulation, well head operations, shaker room activities and related maintenance.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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: 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 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: Drilling mud (re-)formulation; 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 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: Drill floor 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 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 7: Operation of solids filtering 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 : 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: Cleaning of solids filtering equipment; 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 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: Treatment and disposal of filtered solids

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 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: 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 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: General exposures

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 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: Pouring from small containers

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 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: 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 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: 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 temperature.

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): : Not applicable.

Exposure estimation and reference to its source : ESVOC SPERC 8.5b.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: 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: Drilling mud (re-)formulation; 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: 6: Drill floor 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: 7: Operation of solids filtering 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: Cleaning of solids filtering equipment; Non-dedicated facility

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 and disposal of filtered solids

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: 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: 11: General exposures

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: Pouring from small 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: 13: 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: 14: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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

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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: Not applicable.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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). 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..

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 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

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): : Not applicable.

Exposure estimation and reference to its source : Not applicable.

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

Exposure assessment (human): : Not applicable.

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	: Not applicable.
Health	: Available hazard data do not support the need for a DNEL to be established for other health effects. Risk management measures are based on qualitative risk characterisation.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 - PROC01, PROC02, PROC03, PROC04
Operation of equipment containing engine oils and similar - PROC20
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
Manual applications e.g. brushing, rolling - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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). Avoid all possible sources of ignition (spark or flame). 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..

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 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 3: General exposures

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 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: Operation of equipment containing engine oils and similar**

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 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: 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 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: 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 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 7: 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 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: Maintenance (of larger plant items) and machine set-up.

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 9: Maintenance of small items

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 10: 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 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: Manual applications e.g. brushing, rolling

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 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: 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 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
Personal protection	: Wear suitable gloves tested to EN374. 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.

Contributing scenario controlling worker exposure for 13: 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 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: 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 temperature.
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):	: Not applicable.
Exposure estimation and reference to its source	: 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	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
Exposure estimation and reference to its source - Workers: 3: General exposures	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
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	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
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	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
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	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 7: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 8: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 9: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 10: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 11: Manual applications e.g. brushing, rolling

- Exposure assessment (human):** : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
- Exposure estimation and reference to its source** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 12: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 13: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

Exposure estimation and reference to its source - Workers: 14: 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** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

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

- Environment** : Not applicable.
- 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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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, PROC08b, PROC09
Process sampling - PROC08b
Metal machining operations - PROC17
Manual applications e.g. brushing, rolling - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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). Avoid all possible sources of ignition (spark or flame). 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..

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 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 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 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: 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 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: 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 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 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 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 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: Manual applications e.g. brushing, rolling

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 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

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 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
Personal protection	: Wear suitable gloves tested to EN374. 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.

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 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: 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 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: 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 temperature.

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): : Not applicable.

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: Manual applications e.g. brushing, rolling

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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 - PROC08a, PROC08b
Mixing operations - PROC03, PROC04
Mould forming - PROC14
Casting operations - PROC06
Spraying - PROC11
Manual applications e.g. brushing, rolling - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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). 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..

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 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 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 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: 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 : Assumes use at not more than 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

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 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: 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 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 7: 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 8: Spraying

Machine / 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 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

Personal protection : Wear suitable gloves tested to EN374.
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.

Contributing scenario controlling worker exposure for 9: Manual applications e.g. brushing, rolling

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 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: 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 temperature.

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):	: Not applicable.
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	
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: 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: 7: 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: 8: 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: 9: Manual applications e.g. brushing, rolling	
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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Use as a fuel - PROC03, 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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: 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 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: 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 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: 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 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 7: Use as a fuel**

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 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: 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 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: 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 temperature.
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):	: Not applicable.
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 : Not applicable.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Operation of equipment containing engine oils and similar - PROC20
Transfer from/pouring from containers - PROC09
Filling/preparation of equipment from drums or containers. - PROC09
General exposures (closed systems) - PROC01, PROC02, PROC03
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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 3: Operation of equipment containing engine oils and similar

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 : 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: 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 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: 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 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: 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 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 7: 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 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: 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 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: 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 temperature.
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):	: Not applicable.
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: 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: 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: 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: 8: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Material transfers - PROC08b
Rolling, Brushing - PROC10
Spraying/fogging by machine application - PROC11
Dipping, immersion and pouring - PROC13
Equipment cleaning and maintenance - PROC08a
Small scale weighing - PROC09
Storage - PROC01, PROC02

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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Technical conditions and measures at process level (source) to prevent release : Not applicable.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.

Organisational measures to prevent/limit release from site : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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). 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..

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 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 3: 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 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: Material 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 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: 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 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: Spraying/fogging by machine application

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 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

Personal protection : Wear suitable gloves tested to EN374.
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.

Contributing scenario controlling worker exposure for 7: 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 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: 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 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: 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 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: 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 temperature.

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):	: Not applicable.
Exposure estimation and reference to its source	: ESVOC SPERC 8.11a.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: 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: 5: Rolling, Brushing	
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: 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: 7: 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: 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: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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: PROC15
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental contributing scenarios : **General exposures**
Health Contributing scenarios : **General measures applicable to all activities - PROC15**
Laboratory activities - PROC15

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 : Not applicable.
Amounts used : Not applicable.
Frequency and duration of use : Not applicable.
Environment factors not influenced by risk management : Not applicable.
Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release : Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Not applicable.
Organisational measures to prevent/limit release from site : Not applicable.
Conditions and measures related to municipal sewage treatment plant : Not applicable.
Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 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 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

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):	: Not applicable.
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.

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

Environment	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Polymer processing - Professional

List of use descriptors : **Identified use name:** Polymer processing - Professional
Process Category: PROC01, PROC02, PROC06, PROC08a, PROC08b, PROC14, PROC21
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, PROC06, PROC08a, PROC08b, PROC14, PROC21
Bulk transfers - PROC01, PROC02
Material transfers - PROC08b
Injection moulding of articles - PROC06, PROC14
Finishing operations - PROC21
Equipment maintenance - PROC08a
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario	: Processing of formulated polymers including material transfers, moulding and forming activities, material re-works and associated maintenance.
--	--

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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 substance within a closed system. 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..

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 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 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 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: Material 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 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: Injection moulding of 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 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: 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 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 7: 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 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: 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 temperature.
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):	: Not applicable.
Exposure estimation and reference to its source	: ESVOC SPERC 8.21b.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: 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: 5: Injection moulding of 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: 6: 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: 7: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Manufacture and use of slurry explosives
List of use descriptors : **Identified use name:** Manufacture and use of slurry explosives
Process Category: PROC01, PROC02, PROC03, PROC05, PROC08a, PROC08b
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08e
Environmental contributing scenarios : **General exposures** - ERC08e
Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC05, PROC08a, PROC08b
Bulk transfers - PROC03
Drum/batch transfers - PROC08a
Mixing operations - PROC03, PROC05
Material transfers - PROC08a
Equipment cleaning and maintenance - PROC08b
Transfer from/pouring from containers - PROC08a
Equipment maintenance - PROC08a
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario	: Covers exposures arising from the manufacture and use of slurry explosives (including materials transfer, mixing and charging) and equipment cleaning.
--	--

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Date of issue/Date of revision : 2/14/2022

177/240

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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). 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..

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 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 3: Bulk transfers

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 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: 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 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

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 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: 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 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 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 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: Transfer from/pouring from containers

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 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: 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 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: 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 temperature.**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):** : Not applicable.**Exposure estimation and reference to its source** : Not applicable.

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: Mixing 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: 6: 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: 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: 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: 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	: Not applicable.
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Water treatment chemicals - Professional

List of use descriptors : **Identified use name:** Water treatment chemicals - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC13
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08f

Environmental contributing scenarios : **General exposures** - ERC08f

Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC13
Drum/batch transfers - PROC08b
General exposures - PROC02, PROC03, PROC04
Pouring from small containers - PROC13
Equipment maintenance - PROC08a
Storage - PROC01

Processes and activities covered by the exposure scenario	: Covers the use of the substance for the treatment of water at industrial facilities in open and closed systems.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Technical conditions and measures at process level (source) to prevent release	: Not applicable.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Not applicable.
Organisational measures to prevent/limit release from site	: Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

Conditions and measures related to external recovery of waste : Not applicable.

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

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 (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..

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 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 3: 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 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: General exposures

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 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: Pouring from small 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 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: 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 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 7: 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 temperature.**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): : Not applicable.

Exposure estimation and reference to its source : ESVOC SPERC 8.22b.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: General exposures

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: Pouring from small 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: 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: 7: 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 : Not applicable.

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)

Consumer

Identification of the substance or mixture

Product definition : UVCB
Code : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 : Not applicable.
Amounts used : Not applicable.
Frequency and duration of use : Not applicable.
Environment factors not influenced by risk management : Not applicable.
Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.
Conditions and measures related to municipal sewage treatment plant : Not applicable.
Conditions and measures related to external treatment of waste for disposal : Not applicable.
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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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 For each use event, covers use amounts up to 9 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 exposure up to 4 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 6 390 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 1 days per year Covers exposure up to 6 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 85.05 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 exposure up to 4 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 75 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 exposure up to 1 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 exposure up to 0.17 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 exposure up to 4 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 exposure up to 0.17 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 For each use event, covers use amounts up to 142 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 29 days per year Covers exposure up to 1.23 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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	: Spray
Concentration of substance in mixture or article	: Covers concentrations up to 50 %
Amounts used	: Covers skin contact area up to 430 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 8 days per year Covers exposure up to 0.33 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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):	: Not applicable.
Exposure estimation and reference to its source	: ESVOC SPERC 8.6e.v1, 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 : Not applicable.

Health : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Estimated consumer exposures are not expected to exceed DNELs when the identified operating conditions are adopted. [ConsG1]
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)

Consumer

Identification of the substance or mixture

Product definition : UVCB
Code : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Liquids - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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
For each use event, covers use amounts up to 9 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 exposure up to 4 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 6 390 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 1 days per year
Covers exposure up to 6 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 85.05 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 exposure up to 4 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, avoid using a product amount greater than 75 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 exposure up to 1 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 0.5 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 exposure up to 0.02 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 2 000 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 exposure up to 0.17 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 exposure up to 0.25 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 exposure up to 0.5 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 exposure up to 0.33 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 35 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 exposure up to 0.17 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 2 760 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 4 days per year
Covers exposure up to 2.2 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 744 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 exposure up to 2.2 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 : Spray

Concentration of substance in mixture or article : Covers concentrations up to 50 %

Amounts used : Covers skin contact area up to 6 600 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 exposure up to 0.33 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 exposure up to 2 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 exposure up to 4 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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, avoid using a product amount greater than 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 exposure up to 2 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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, assumes swallowed amount of 1 g For each use event, covers use amounts up to 37 500 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 exposure up to 8 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, assumes swallowed amount of 1.35 g For each use event, covers use amounts up to 37 500 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 exposure up to 8 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 2 760 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 4 days per year Covers exposure up to 2.2 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 744 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 exposure up to 2.2 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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	: Spray
Concentration of substance in mixture or article	: Covers concentrations up to 50 %
Amounts used	: Covers skin contact area up to 6 600 cm ² For each use event, covers use amounts up to 215 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 2 days per year Covers exposure up to 0.33 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 For each use event, covers use amounts up to 491 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 3 days per year Covers exposure up to 2 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 For each use event, covers use amounts up to 40 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 exposure up to 2.2 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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. / Dye.

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 For each use event, covers use amounts up to 56 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 29 days per year Covers exposure up to 1.23 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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. / Dye.

Product characteristics	: Spray
Concentration of substance in mixture or article	: Covers concentrations up to 50 %
Amounts used	: Covers skin contact area up to 430 cm ² For each use event, covers use amounts up to 56 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 8 days per year Covers exposure up to 0.33 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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: 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 exposure up to 0.17 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 : 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 exposure up to 4 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.17 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 142 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 exposure up to 1.23 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 : Spray**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 35 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 exposure up to 0.33 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 115 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 exposure up to 1 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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):** : Not applicable.**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: Liquids

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 : Not applicable.

Health : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Estimated consumer exposures are not expected to exceed DNELs when the identified operating conditions are adopted. [ConsG1]
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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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, ERC08d
Market sector by type of chemical product: PC03, PC04, PC08, PC09a, PC09b, PC09c, PC24, PC35, PC38

Environmental contributing scenarios : **General exposures** - ERC08a, ERC08d

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
Liquids - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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

Product characteristics	: Spray
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 0.1 g Covers use in room size of 20 m ³
Frequency and duration of use/exposure	: Covers use up to 4 times per day Covers use up to 365 days per year Covers exposure up to 0.25 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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

Product characteristics	: Solid / Liquid
Concentration of substance in mixture or article	: Covers concentrations up to 10 %
Amounts used	: Covers skin contact area up to 35.7 cm ² For each use event, covers use amounts up to 0.48 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 daily exposures up to 8 hours Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 0.5 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 365 days per year Covers exposure up to 0.02 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 2 000 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 exposure up to 0.17 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.25 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.5 hour
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.33 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 : Spray**Concentration of substance in mixture or article** : Covers concentrations up to 15 %**Amounts used** : Covers skin contact area up to 428 cm²
For each use event, covers use amounts up to 35 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 exposure up to 0.17 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 2 760 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 4 days per year
Covers exposure up to 2.2 hour(s)
Covers use under typical household ventilation.**Other given operational conditions affecting consumers exposure** : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
For each use event, covers use amounts up to 744 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 exposure up to 2.2 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 : Spray

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 exposure up to 0.33 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 2 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 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 exposure up to 4 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 cm²
For each use event, covers use amounts up to 13 800 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 exposure up to 2 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 cm²
For each use event, assumes swallowed amount of 1 g
For each use event, avoid using a product amount greater than 13 800 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 exposure up to 8 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 cm²
For each use event, assumes swallowed amount of 1.35 g
For each use event, covers use amounts up to 13 800 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 exposure up to 8 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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: 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 exposure up to 0.17 hour(s)
Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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 : 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 exposure up to 4 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.17 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.5 hour(s)
Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure : Covers use at ambient temperatures.
Liquid, vapour pressure < 0.5 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
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 exposure up to 0.33 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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	: Spray
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 exposure up to 0.17 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 exposure up to 1 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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	: Spray
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 Covers use up to 365 days per year Covers use under typical household 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 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
Concentration of substance in mixture or article	: Covers concentrations up to 50 %
Amounts used	: Covers skin contact area up to 35.7 cm ² For each use event, covers use amounts up to 0.48 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 8 hour(s)
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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):	: Not applicable.
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: Liquids

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 : Not applicable.

Health : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Estimated consumer exposures are not expected to exceed DNELs when the identified operating conditions are adopted. [ConsG1]
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)

Consumer

Identification of the substance or mixture

Product definition : UVCB
Code : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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
Market sector by type of chemical product: PC01
Environmental contributing scenarios : **General exposures** - ERC08a
Health Contributing scenarios : **General measures applicable to all activities** - PC01

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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: Not applicable.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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):	: Not applicable.
Exposure estimation and reference to its source	: Not applicable.

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	: Not applicable.
Health	: Not applicable.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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: lamp oil - 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	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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 cm ² For each use event, covers use amounts up to 37 500 g Covers use in room size of 100 m ³
Frequency and duration of use/exposure	: Covers use up to 1 times per day Covers use up to 52 days per year Covers exposure up to 0.05 hour(s) Covers outdoor use.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 cm ² For each use event, covers use amounts up to 3 750 g Covers use in room size of 100 m ³

Frequency and duration of use/exposure	: Covers use up to 1 times per day Covers use up to 52 days per year Covers exposure up to 0.03 hour(s) Covers outdoor use.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 use in room size of 100 m ³ For each use event, covers use amounts up to 750 g Covers skin contact area up to 420 cm ²
Frequency and duration of use/exposure	: Covers use up to 1 times per day Covers use up to 26 days per year Covers exposure up to 2 hour(s) Covers outdoor use.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 For each use event, covers use amounts up to 750 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 26 days per year Covers exposure up to 0.03 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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: lamp oil

Product characteristics	: Liquid
Concentration of substance in mixture or article	: Covers concentrations up to: 100 %
Amounts used	: Covers skin contact area up to (cm ²): 210 cm ² For each use event, covers use amounts up to (g): 100 g Covers use in room size of (m ³): 20 m ³
Frequency and duration of use/exposure	: Covers use up to 1 times per day Covers use up to 52 days per year Covers exposure up to 0.01 hour(s) Covers use under typical household ventilation.

Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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: 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 For each use event, covers use amounts up to 3 000 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 exposure up to 0.03 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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):	: Not applicable.
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: lamp oil

Exposure assessment (human): : ECETOC TRA, consumer

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 8: 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 : Not applicable.

Health : Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Estimated consumer exposures are not expected to exceed DNELs when the identified operating conditions are adopted. [ConsG1]
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)

Consumer

Identification of the substance or mixture

Product definition : UVCB
Code : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : No exposure assessment presented for the environment.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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 percentage substance in the product 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 exposure up to 0.17 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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 percentage substance in the product 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 exposure up to 0.17 hour(s) Covers use in a one car garage (34 m ³) under typical ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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): : Not applicable.

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	: Not applicable.
Health	: Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Estimated consumer exposures are not expected to exceed DNELs when the identified operating conditions are adopted. [ConsG1] 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)

Consumer

Identification of the substance or mixture

Product definition : UVCB
Code : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Other consumer uses

List of use descriptors : **Identified use name:** Other consumer uses
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: 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 : Not applicable.

Amounts used : Not applicable.

Frequency and duration of use : Not applicable.

Environment factors not influenced by risk management : Not applicable.

Other operational conditions of use affecting environmental exposure : Not applicable.

Conditions and measures related to municipal sewage treatment plant : Not applicable.

Conditions and measures related to external treatment of waste for disposal : Not applicable.

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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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):	: Not applicable.
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	: Not applicable.
Health	: Not applicable.

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 : 1164360
Product name : PC FLUIDS EXXSOL D40 (EU) <P>

Section 1 - Title

Short title of the exposure scenario : Water treatment chemicals - Consumer
List of use descriptors : **Identified use name:** Water treatment chemicals - Consumer
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08f
Market sector by type of chemical product: PC36, PC37
Environmental contributing scenarios : **General exposures** - ERC08f
Health Contributing scenarios : **General measures applicable to all activities** - PC36, PC37
Water softeners - PC36
Water treatment chemicals - PC37

Processes and activities covered by the exposure scenario	: Covers the use of the substance for the treatment of water in open and closed systems.
---	--

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General exposures

Product characteristics	: Not applicable.
Amounts used	: Not applicable.
Frequency and duration of use	: Not applicable.
Environment factors not influenced by risk management	: Not applicable.
Other operational conditions of use affecting environmental exposure	: No exposure assessment presented for the environment.
Conditions and measures related to municipal sewage treatment plant	: Not applicable.
Conditions and measures related to external treatment of waste for disposal	: Not applicable.
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 (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.

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. Avoid all possible sources of ignition (spark or flame). - No smoking. Review SDS for additional advice..

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: Water softeners

Product characteristics	: Liquid
Concentration of substance in mixture or article	: Covers concentrations up to 20%.
Amounts used	: Covers skin contact area up to 6 600 cm ² For each use event, assumes swallowed amount of 0.000015 g For each use event, covers use amounts up to 10 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 exposure up to 4 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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: Water treatment chemicals

Product characteristics	: Liquid
Concentration of substance in mixture or article	: Covers concentrations up to 20%.
Amounts used	: Covers skin contact area up to 6 600 cm ² For each use event, assumes swallowed amount of 0.000154 g For each use event, covers use amounts up to 10 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 exposure up to 4 hour(s) Covers use under typical household ventilation.
Other given operational conditions affecting consumers exposure	: Covers use at ambient temperatures. Liquid, vapour pressure < 0.5 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): : Not applicable.

Exposure estimation and reference to its source : ESVOC SPERC 8.22c.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: Water softeners

Exposure assessment (human): : ECETOC TRA, consumer

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 4: Water treatment chemicals

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	: Not applicable.
Health	: Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Estimated consumer exposures are not expected to exceed DNELs when the identified operating conditions are adopted. [ConsG1] 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.

EXXSOL™ D40 ULB