

# SAFETY DATA SHEET

(SOLAS regulation VI/5-1 format)

C11+ HEAVY AROMATICS

**ExxonMobil**

## Section 1. Identification

**Product name** : C11+ HEAVY AROMATICS

**Product description** : Aromatic Hydrocarbon

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

**Identified uses** : Feedstock, Solvent, Wash Oil

**Uses advised against** : This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above.

**MARPOL Annex I Category** : Naphthas, and condensates

**See Section 14 for transportation information related to the Bill of Lading, other shipping documents**

**Supplier** : ExxonMobil Product Solutions Company (a division of Exxon Mobil Corporation)  
SDS – LOC. 106  
22777 Springwoods Village Parkway  
Spring, TX 77389-1425 USA

**Supplier General Contact** : (832) 624-8500

**Local Emergency telephone number** : Belgium: +(32)-28083237 (CHEMTREC)  
China: 400 120 4937  
France: +(33)-975181407 (CHEMTREC)  
Germany: 0800 181 7059 or +(49)-69643508409 (CHEMTREC)  
India: 000-800-100-7141  
Italy: 0800 789767 (in country) or +(39)-0245557031 (CHEMTREC)  
Japan: 0800-300-5842  
Malaysia: +60 3-9212 5794  
Netherlands: +(31)-858880596 (CHEMTREC)  
Republic of Korea: 080-880-0454  
Singapore: 800-101-2201  
Spain: 900 868538 or +(34)-931768545 (CHEMTREC)  
Thailand: 1800014808  
United Kingdom: +44 20 3807 3798  
United States: (800) 424-9300 or (703) 527-3887 (CHEMTREC)

**This (M)SDS is a generic document with no country specific information included.**

## Section 2. Hazard identification

This material is hazardous according to UN GHS Criteria. Classification includes all GHS hazard classes. For hazard categories with two cut-off/concentration limits, classification was based on the higher limit.

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 5  
ACUTE TOXICITY (inhalation) - Category 4  
CARCINOGENICITY - Category 1B  
REPRODUCTIVE TOXICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2  
ASPIRATION HAZARD - Category 1  
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

### GHS label elements

**Hazard pictograms** :



## Section 2. Hazard identification

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Signal word</b>                                         | : Danger                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Hazard statements</b>                                   | : H303 - May be harmful if swallowed.<br>H304 - May be fatal if swallowed and enters airways.<br>H332 - Harmful if inhaled.<br>H350 - May cause cancer.<br>H361 - Suspected of damaging fertility or the unborn child.<br>H373 - May cause damage to organs through prolonged or repeated exposure.<br>(blood, liver, thymus)<br>H410 - Very toxic to aquatic life with long lasting effects. |
| <b><u>Precautionary statements</u></b>                     |                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Prevention</b>                                          | : P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P260 - Do not breathe vapour.<br>P271 - Use only outdoors or in a well-ventilated area.<br>P273 - Avoid release to the environment.<br>P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.    |
| <b>Response</b>                                            | : P301 + P331, P310 - IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.<br>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.<br>P308 + P313 - IF exposed or concerned: Get medical advice or attention.<br>P391 - Collect spillage.                           |
| <b>Storage</b>                                             | : P405 - Store locked up.                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Disposal</b>                                            | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.                                                                                                                                                                                                                                                                    |
| <b>Contains</b>                                            | : residues (petroleum), catalytic reformer fractionator                                                                                                                                                                                                                                                                                                                                       |
| <b>Other hazards which do not result in classification</b> | : None known.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Nota</b>                                                | : 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

|                          |                                                         |
|--------------------------|---------------------------------------------------------|
| <b>Substance/mixture</b> | : Substance                                             |
| <b>Chemical name</b>     | : residues (petroleum), catalytic reformer fractionator |

| <b>Ingredient name</b>                                | <b>% by weight</b> | <b>Identifiers</b> |
|-------------------------------------------------------|--------------------|--------------------|
| residues (petroleum), catalytic reformer fractionator | 100                | CAS: 64741-67-9    |
| 2-methylnaphthalene                                   | 7 - 12             | CAS: 91-57-6       |
| naphthalene                                           | 6 - 11             | CAS: 91-20-3       |

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

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

**Nota :**

## Section 4. First-aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Remove contaminated clothing. Dry wipe exposed skin and cleanse with waterless hand cleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 10 minutes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Get medical attention.
- 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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Harmful if inhaled.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : May be harmful if swallowed. May be fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.
- Specific treatments** : No specific treatment.
- 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## 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.

### 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. 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".

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

### Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Confine the spill immediately with booms. Remove from the surface by skimming or with suitable absorbents. 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.

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## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 ( $100 \times 10^{-12}$  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

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. 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. 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.

- Storage Temperature** : Ambient

- Storage Pressure** : Ambient

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

- Suitable Materials and Coatings** : Carbon Steel, Stainless Steel

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name                                                              | Exposure limits                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Residues (petroleum), catalytic reformer fractionator<br>2-methylnaphthalene | <b>ExxonMobil (COMPANY)</b> Absorbed through skin.<br>TWA 8 hours: 0.1 mg/m <sup>3</sup> (benzene solubles). Form: Total oil mist.<br><b>ACGIH TLV (United States, 1/2024)</b> Absorbed through skin.<br>TWA 8 hours: 0.5 ppm.  |
| naphthalene                                                                  | <b>ExxonMobil (COMPANY)</b> Absorbed through skin.<br>STEL 15 minutes: 28 mg/m <sup>3</sup> .<br><b>ACGIH TLV (United States, 1/2024)</b> Absorbed through skin.<br>TWA 8 hours: 10 ppm.<br>TWA 8 hours: 52 mg/m <sup>3</sup> . |
| 1-methylnaphthalene                                                          | <b>ACGIH TLV (United States, 1/2024)</b> Absorbed through skin.<br>TWA 8 hours: 0.5 ppm.<br><b>ExxonMobil (COMPANY)</b> Absorbed through skin.<br>STEL 15 minutes: 28 mg/m <sup>3</sup> .                                       |

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

#### Biological exposure indices

| Ingredient name     | Exposure indices                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-methylnaphthalene | <b>ACGIH BEI (United States, 1/2024) [polycyclic aromatic hydrocarbons]</b><br>BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of workweek.<br>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a) pyrene [in urine]. Sampling time: end of shift at end of workweek. |
| naphthalene         | <b>ACGIH BEI (United States, 1/2024)</b><br>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 1-naphthol + 2-naphthol [(sample not specified)]. Sampling time: end of shift.                                                                                                                                        |

#### 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.

#### 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): Viton, minimum 0.71 mm thickness or comparable protective barrier material
- 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.
- 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 (Type A) and particulate filter

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

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

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

### Appearance

- Physical state** : Liquid. [Clear]
- Colour** : Dark Brown
- Odour** : Aromatic
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 210 to 380°C (410 to 716°F) [ASTM D1078]
- Flash point** :  Closed cup: 100°C (212°F) [ASTM D-93]
- Evaporation rate** :  0.01 (butyl acetate = 1) [In-house method ,]
- Flammability** : Ignitable
- Lower and upper explosion limit/flammability limit** : Lower: 0.7% [Extrapolated]  
Upper: 6%
- Vapour pressure** : 0.05 mm Hg [20 °C] [Calculated]
- Relative vapour density** :  4 [Air = 1] [In-house method ,]
- Relative density** : 0.99 [Calculated]
- Density** : 0.99 g/cm<sup>3</sup> [0.99°C (33.8°F)] [ASTM D4052]
- Solubility in water** : Negligible
- Partition coefficient: n-octanol/water** :  4 [Estimated]
- Auto-ignition temperature** : 448°C (838.4°F) [Extrapolated]
- Decomposition temperature** : Not available.
- Viscosity** : 3.2 cSt [40 °C] [Calculated]
- Molecular weight** : 185

### Particle characteristics

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

|                                         |                       |
|-----------------------------------------|-----------------------|
| <b>Median particle size</b>             | : Not applicable.     |
| <b>Pour point</b>                       | : <-21°C [ASTM D5950] |
| <b>Hygroscopic</b>                      | : No                  |
| <b>Coefficient of Thermal Expansion</b> | : 0.00074 per Deg C   |

## Section 10. Stability and reactivity

|                                           |                                                                                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| <b>Chemical stability</b>                 | : The product is stable.                                                                               |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>Conditions to avoid</b>                | : Excessive heat.                                                                                      |
| <b>Incompatible materials</b>             | : Strong oxidisers                                                                                     |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                               | Result                                                                                                                                                                       |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| residues (petroleum), catalytic reformer fractionator | <b>Rabbit - Dermal - LD50</b><br>>2000 mg/kg<br><b>Rat - Oral - LD50</b><br>4320 mg/kg<br><b>Rat - Inhalation - LC50 Dusts and mists</b><br>4100 mg/m <sup>3</sup> [4 hours] |
| residues (petroleum), catalytic reformer fractionator | <b>Rat - Oral - LD50</b><br>4320 mg/kg                                                                                                                                       |
| naphthalene                                           | <b>Mouse - Oral - LD50</b><br>533 mg/kg<br><b>Rat - Inhalation - LC50 Vapour</b><br>>0.4 mg/l [4 hours]                                                                      |

#### Conclusion/Summary

|                   |                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b> | : Moderately toxic. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403 |
| <b>Dermal</b>     | : Minimally Toxic. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402  |
| <b>Oral</b>       | : Minimally Toxic. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401  |

#### Irritation/Corrosion

#### Conclusion/Summary

|             |                                                                                                                                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin</b> | : 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 |
| <b>Eyes</b> | : 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      |



## Section 11. Toxicological information

**Respiratory** : Negligible hazard at ambient/normal handling temperatures. No end point data for material. Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

### 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 471 474 475 476 479 486

### Carcinogenicity

**Conclusion/Summary** : May cause cancer. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451

### Classification

| Product/ingredient name                               | IARC |
|-------------------------------------------------------|------|
| residues (petroleum), catalytic reformer fractionator | 2B   |
| naphthalene                                           | 2B   |

### Reproductive toxicity

**Conclusion/Summary** : May damage the unborn child. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 414 416

### Specific target organ toxicity (single exposure)

**Conclusion/Summary** : Not expected to cause organ damage from a single exposure. No end point data for material.

### Specific target organ toxicity (repeated exposure)

| Product/ingredient name                               | Category   | Target organs        |
|-------------------------------------------------------|------------|----------------------|
| residues (petroleum), catalytic reformer fractionator | Category 2 | blood, liver, thymus |

**Conclusion/Summary** : May cause damage to organs through prolonged or repeated exposure. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 408 411

### Aspiration hazard

| Product/ingredient name                               | Result     |
|-------------------------------------------------------|------------|
| residues (petroleum), catalytic reformer fractionator | Category 1 |

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

### Other information

**Contains** : NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain. Polycyclic Aromatic Compounds (PAC/PNA): Carcinogenic in animal studies. Caused mutations in-vitro. Reproductive and developmental studies resulted in decreased fetal weights, survival and malformations, as well as reduced sperm count in males. Dermal studies resulted in increased mortality, skin irritation, liver, kidney, thymus, bone marrow, blood and lymphoid tissue toxic effects. Possible allergen and/or photoallergen.

## Section 11. Toxicological information

**Product** : Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Vapour/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous system effects including death. 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.

### Toxicity

| Product/ingredient name                               | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Residues (petroleum), catalytic reformer fractionator | <b>Acute - NOEL</b><br>Algae - <i>Pseudokirchneriella subcapitata</i><br>0.22 mg/l - data for similar materials [72 hours]<br><b>Acute - EL50</b><br>Algae - <i>Pseudokirchneriella subcapitata</i><br>7.9 mg/l - data for similar materials [72 hours]<br><b>Acute - LL50</b><br>Fish - <i>Oncorhynchus mykiss</i><br>3 mg/l - data for similar materials [96 hours]<br><b>Acute - EL50</b><br>daphnia - <i>Daphnia magna</i><br>1.1 mg/l - data for similar materials [48 hours] |

### Conclusion/Summary

**Acute toxicity** : Very toxic to aquatic life.  
**Chronic toxicity** : Very toxic to aquatic life with long lasting effects.

### Persistence and degradability

**Biodegradability** : Material -- Expected to be inherently biodegradable  
**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

### Bioaccumulative potential

Not determined.

### Mobility in soil

**Mobility** : Material -- Expected to partition to sediment and wastewater solids. Moderately volatile.

### Other ecological information

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

### **INTERNATIONAL OIL POLLUTION COMPENSATION (IOPC)**

Material is considered a non-persistent oil.

## Section 13. Disposal considerations

### Disposal methods

- : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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.

### MARPOL

- : see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.

## Section 14. Transport information

|                            | IMDG                                                                                                                                                                    |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN number                  | UN3082                                                                                                                                                                  |
| UN proper shipping name    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (residues (petroleum), catalytic reformer fractionator, 2-methylnaphthalene)                                        |
| Transport hazard class(es) | 9                                                                                                                                                                       |
| Label(s) / Mark(s)         |   |
| Packing group              | III                                                                                                                                                                     |
| Environmental hazards      | Yes.                                                                                                                                                                    |

### Additional information

#### IMDG

- : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Emergency schedules** F-A, S-F

**Special provisions** 274, 335, 969

Note - this material is being carried under the scope of MARPOL Annex I

## Section 15. Regulatory information

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Section 15. Regulatory information

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

|                                                                    |                                          |
|--------------------------------------------------------------------|------------------------------------------|
| <a href="#">Australia inventory (AIIC)</a>                         | : All components are listed or exempted. |
| <a href="#">Canada inventory (DSL-NDSL)</a>                        | : All components are listed or exempted. |
| <a href="#">China inventory (IECSC)</a>                            | : All components are listed or exempted. |
| <a href="#">Japan inventory (CSCL)</a>                             | : All components are listed or exempted. |
| <a href="#">Japan inventory (Industrial Safety and Health Act)</a> | : Not determined.                        |
| <a href="#">New Zealand Inventory of Chemicals (NZIoC)</a>         | : All components are listed or exempted. |
| <a href="#">Philippines inventory (PICCS)</a>                      | : All components are listed or exempted. |
| <a href="#">Korea inventory (KECI)</a>                             | : All components are listed or exempted. |
| <a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>        | : All components are listed or exempted. |
| <a href="#">United States inventory (TSCA 8b)</a>                  | : All components are active or exempted. |

Section 16. Other information

[History](#)

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Date of issue/Date of revision</a> | : 20 August 2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <a href="#">Date of previous issue</a>         | : 3 September 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <a href="#">Version</a>                        | : 2.03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <a href="#">Key to abbreviations</a>           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>SGG = Segregation Group<br>UN = United Nations |

[Procedure used to derive the classification](#)

| Classification                                                  | Justification      |
|-----------------------------------------------------------------|--------------------|
| ACUTE TOXICITY (oral) - Category 5                              | Calculation method |
| ACUTE TOXICITY (inhalation) - Category 4                        | Calculation method |
| CARCINOGENICITY - Category 1B                                   | Calculation method |
| REPRODUCTIVE TOXICITY - Category 2                              | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1                                  | Calculation method |
| SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1                  | Calculation method |
| LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1                 | Calculation method |

[References](#) : Not available.

 Indicates information that has changed from previously issued version.

[Product code](#) : 1168680\_13744593

## Section 16. Other information

### [Notice to reader](#)

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