

SAFETY DATA SHEET



ESCAID™ 100

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

1.1 Product identifier

Product name : ESCAID™ 100

EC number : 925-653-7

REACH Registration number

Registration number

01-2119458869-15-0000

CAS number : -

Product description : Aliphatic Hydrocarbon

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

Intended Use : Mining solvent, Solvent

Identified uses

Manufacture of substance
Distribution of substance
Formulation and (re)packing of substances and mixtures
Use in laboratories - Industrial
Use in laboratories - Professional
Mining chemicals

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier : ExxonMobil Petroleum & Chemical BV

POLDERDIJKWEG
Antwerpen B-2030 Belgium

Supplier General Contact : + 32 2 239 3111

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

SDS Internet Address : www.sds.exxonmobil.com

National contact

ExxonMobil Chemical Ltd.
MAILPOINT 14
MARSH LANE
FAWLEY, SOUTHAMPTON
SO45 1TX HAMPSHIRE
Great Britain
+44 (0)23-8089-3822

1.4 Emergency telephone number

National advisory body/ : (UK) 111

Poison Centre

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

Telephone

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : UVCB

Classification according to UK CLP/GHS

Asp. Tox. 1, H304

Aquatic Chronic 3, H412

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

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

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

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H304 - May be fatal if swallowed and enters airways.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P273 - Avoid release to the environment.

Response : P301 + P331, P310 - IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

Storage : P405 - Store locked up.

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

Hazardous ingredients : Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

Supplemental label elements : 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

Special packaging requirements

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

Tactile warning of danger : Not applicable.

2.3 Other hazards

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

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

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

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

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SECTION 3: Composition/information on ingredients

3.1 Substances : UVCB

| Product/ingredient name | Identifiers | % | Classification | Type |
|--|---|-----|--|------|
| kerosine (petroleum), hydrodesulphurised | REACH #: 01-2119458869-15 EC: 925-653-7 CAS: - | 100 | Asp. Tox. 1, H304 Aquatic Chronic 3, H412 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.

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 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 adverse health effects persist or are severe. 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. 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** : No specific data.
- 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

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SECTION 4: First aid measures

- Notes to physician** : If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.
- 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** : Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Incomplete combustion products, Oxides of carbon, Smoke, Fume

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Assure an extended cooling down period to prevent re-ignition. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

NOTIFICATION PROCEDURES

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

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

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

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

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

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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

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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 |

Storage Temperature : Ambient

Storage Pressure : Ambient

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

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

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|--|--|
| kerosine (petroleum), hydrodesulphurised | ExxonMobil (COMPANY) RCP - TWA: 53 ppm. Form: Vapour.. RCP - TWA: 350 mg/m ³ . Form: Vapour.. |
| kerosine (petroleum), hydrodesulphurised | ACGIH TLV (United States, 1/2025) [Kerosene] Absorbed through skin. TWA 8 hours: 200 mg/m ³ (as total hydrocarbon vapor). ExxonMobil (COMPANY) Absorbed through skin. TWA 8 hours: 5 mg/m ³ . Form: Stable Aerosol.. TWA 8 hours: 200 mg/m ³ . Form: Vapour.. |

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

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

SECTION 8: Exposure controls/personal protection**DNELs/DMELs**

Not available.

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**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.

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 and safety characteristics

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

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

9.1 Information on basic physical and chemical properties

Appearance

| | |
|---|--|
| Physical state | : Liquid. [Clear] |
| Colour | : Colourless |
| Odour | : Slight |
| Odour threshold | : Not available. |
| pH | : Not applicable. |
| Melting point/freezing point | : Not available. |
| Boiling point or initial boiling point and boiling range | : 203 to 239°C (397.4 to 462.2°F) [ASTM D86] |
| Flash point | : Closed cup: 81°C (177.8°F) [ASTM D-93] |
| Evaporation rate | : 0.02 (butyl acetate = 1) [In-house method ,] |
| Flammability | : Flammable liquids - Category 4 |
| Lower and upper explosive (flammable) limits | : Lower: 0.6% [Extrapolated] Upper: 6% |
| Vapour pressure | : 0.15 mm Hg [20 °C] [Calculated] |
| Relative vapour density | : 6.2 [Air = 1] [In-house method ,] |
| Relative density | : 0.82 [Calculated] |
| Density | : 0.82 g/cm ³ [15°C (59°F)] [ISO 12185] |
| Solubility in water | : Negligible |
| Partition coefficient: n-octanol/ water | : >4 [Estimated] |
| Auto-ignition temperature | : 232°C (449.6°F) [ASTM E659] |
| Decomposition temperature | : Not available. |
| Viscosity | : 1.6 cSt [40 °C] [Calculated] 2.3 cSt [20 °C] [ASTM D7042] |
| Molecular weight | : 179 |
| <u>Particle characteristics</u> | |
| Median particle size | : Not applicable. |
| Pour point | : -45°C [ASTM D5950] |
| Hygroscopic | : No |
| Coefficient of Thermal Expansion | : 0.00088 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. |

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SECTION 10: Stability and reactivity

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

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

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

| Product/ingredient name | Result |
|--|---|
| Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics | Rat - Oral - LD50 >5000 mg/kg |
| | Rabbit - Dermal - LD50 >3400 mg/kg |
| | Rat - Inhalation - LC50 Vapour >13.1 mg/l [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
- 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 471 473 474 475 479

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

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SECTION 11: Toxicological information

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 |
|--|-----------------|---------------|
| kerosine (petroleum), hydrodesulphurised | 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 408 411 413

Aspiration hazard

| Product/ingredient name | Result |
|--|------------|
| kerosine (petroleum), hydrodesulphurised | Category 1 |

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

Information on likely routes of exposure : Not available.

Other information

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. 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, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics | Acute - LL50 Fish - <i>Oncorhynchus mykiss</i> 10 to 30 mg/l - data for similar materials [96 hours] |
| | Acute - EL50 daphnia - <i>Daphnia magna</i> 10 to 22 mg/l - data for similar materials [48 hours] |
| | Acute - EL50 Algae - <i>Pseudokirchneriella subcapitata</i> 4.6 to 10 mg/l - data for similar materials [72 hours] |
| | Acute - NOEL Algae - <i>Pseudokirchneriella subcapitata</i> 1 mg/l - data for similar materials [72 hours] |
| | Chronic - NOEC daphnia - <i>Daphnia magna</i> 0.097 mg/l - data for similar materials [21 days] |
| | Chronic - LOEC daphnia - <i>Daphnia magna</i> 0.203 mg/l - data for similar materials [21 days] |

Conclusion/Summary

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Section 12. Ecological information

- Acute toxicity** : Harmful to aquatic life.
Chronic toxicity : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

| Product/ingredient name | Result |
|--|---|
| Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics | Ready Biodegradability 74.7% [28 days] |

- Biodegradability** : Material -- Available OECD 301F biodegradation data indicate that material is readily biodegradable (=60% in 28 days).
Hydrolysis : Material -- Transformation due to hydrolysis not expected to be significant.
Photolysis : Material -- Transformation due to photolysis not expected to be significant.
Atmospheric Oxidation : Material -- Expected to degrade rapidly in air

12.3 Bioaccumulative potential

Not determined.

12.4 Mobility in soil

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

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

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

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

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

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

Packaging

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

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

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SECTION 13: Disposal considerations

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

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|--|----------------|---|----------------|----------------|
| 14.1 UN number | Not regulated. | 9003 | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | SUBSTANCES WITH A FLASH-POINT ABOVE 60 °C AND NOT MORE THAN 100 °C (kerosine (petroleum), hydrodesulphurised) | - | - |
| 14.3 Transport hazard class(es) | - | 9 | - | - |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | Yes. | No. | No. |

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.
F, N2

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

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

ESCAID™ 100

SECTION 15: Regulatory information

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

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

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) |

National regulations

| Product/ingredient name | List name | Name on list | Classification | Notes |
|--|-----------|--------------|----------------|-------|
| Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) | ACGIH TLV | Kerosene | A3 | - |

EU regulations

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

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

Inventory list

- Australia inventory (AIRC)** : 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.

ESCAID™ 100

SECTION 15: Regulatory information

64742-81-0

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

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

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

Procedure used to derive the classification

| Classification | Justification |
|-------------------------|--------------------|
| Asp. Tox. 1, H304 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| | |
|--------|---|
| H304 | May be fatal if swallowed and enters airways. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Full text of classifications

| | |
|-------------------|---|
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |

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Date of previous issue : 5 August 2025

Version : 4.06

Product code : 1168357

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Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : UVCB
Code : 1168357
Product name : PC FLUIDS ESCAID 100 (EU)

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

| | |
|--|---|
| 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 | : Predominantly hydrophobic Substance is complex UVCB. |
| Amounts used | : Annual site tonnage (tonnes/year): 1 100 tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 1 Maximum daily site tonnage (kg/day): 11 000 kg/day Regional use tonnage (tonnes/year): 1 100 tonnes/year |
| Frequency and duration of use | : Continuous release Emission days (days per year): 100 days per year |
| Environment factors not influenced by risk management | : Local freshwater dilution factor: 10 Local marine water dilution factor: 100 |
| Other operational conditions of use affecting environmental exposure | : Release fraction to air from process (initial release prior to RMM): 0.001 Release fraction to soil from process (initial release prior to RMM): 0.0001 Release fraction to wastewater from process (initial release prior to RMM): 0.00003 |
| Technical conditions and measures at process level (source) to prevent release | : Common practices vary across sites thus conservative process release estimates used. |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil | : If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: 0 % No secondary wastewater treatment required. Risk from environmental exposure is driven by freshwater sediment. Treat air emission to provide a typical removal efficiency of: 90 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: 0 % |
| Organisational measures to prevent/limit release from site | : Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sludge should be incinerated, contained or reclaimed. |

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| | |
|--|---|
| Conditions and measures related to municipal sewage treatment plant | : Assumed domestic sewage treatment plant flow: 10 000 m ³ /day Estimated substance removal from wastewater via municipal sewage treatment: 86.9 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 450 000 kg/day Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 86.9 % |
| Conditions and measures related to external treatment of waste for disposal | : During manufacturing, no waste of the substance is generated. |
| Conditions and measures related to external recovery of waste | : During manufacturing, no waste of the substance is generated. |

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

General measures (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.

| | |
|--|--|
| Product characteristics | : Liquid |
| Concentration of substance in mixture or article | : Covers percentage substance in the product up to 100 %. |
| Frequency and duration of use/exposure | : Covers daily exposures up to 8 hours (unless stated differently) |
| Other operational conditions affecting worker exposure | : No exposure assessment presented for human health. |
| Conditions and measures related to personal protection, hygiene and health evaluation | |
| Advice on general occupational hygiene | : Assumes a good basic standard of occupational hygiene is implemented |

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

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

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

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

| | |
|--|-------------------|
| Exposure assessment (human): | : Not applicable. |
| Exposure estimation and reference to its source | : Not applicable. |

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

| | |
|--------------------|--|
| Environment | : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions 0.000015 Maximum Risk Characterisation Ratios for waste water emissions 0.024 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| Health | : Available hazard data do not 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)

Industrial

Identification of the substance or mixture

Product definition : UVCB
Code : 1168357
Product name : PC FLUIDS ESCAID 100 (EU)

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

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

Section 2 - Exposure controls

| | |
|---|---|
| Contributing scenario controlling environmental exposure for 1: General exposures | |
| Product characteristics | : Predominantly hydrophobic Substance is complex UVCB. |
| Amounts used | : Annual site tonnage (tonnes/year): 0.6 tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 0.002 Maximum daily site tonnage (kg/day): 30 kg/day Regional use tonnage (tonnes/year): 300 tonnes/year |
| Frequency and duration of use | : Continuous release Emission days (days per year): 20 days per year |
| Environment factors not influenced by risk management | : Local freshwater dilution factor: 10 Local marine water dilution factor: 100 |
| Other operational conditions of use affecting environmental exposure | : Release fraction to air from process (initial release prior to RMM): 0.0001 Release fraction to soil from process (initial release prior to RMM): 0.00001 Release fraction to wastewater from process (initial release prior to RMM): 0.000001 |
| Technical conditions and measures at process level (source) to prevent release | : Common practices vary across sites thus conservative process release estimates used. |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil | : If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: 0 % No secondary wastewater treatment required. Risk from environmental exposure is driven by freshwater. Treat air emission to provide a typical removal efficiency of: 90 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: 0 % |

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| | |
|--|--|
| Organisational measures to prevent/limit release from site | : Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sludge should be incinerated, contained or reclaimed. |
| Conditions and measures related to municipal sewage treatment plant | : Assumed domestic sewage treatment plant flow: 2 000 m ³ /day Estimated substance removal from wastewater via municipal sewage treatment: 86.9 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 7 600 kg/day Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 86.9 % |
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| Conditions and measures related to external recovery of waste | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |

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

General measures (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.

| | |
|--|--|
| Product characteristics | : Liquid |
| Concentration of substance in mixture or article | : Covers percentage substance in the product up to 100 %. |
| Frequency and duration of use/exposure | : Covers daily exposures up to 8 hours (unless stated differently) |
| Other operational conditions affecting worker exposure | : No exposure assessment presented for human health. |
| Conditions and measures related to personal protection, hygiene and health evaluation | |
| Advice on general occupational hygiene | : Assumes a good basic standard of occupational hygiene is implemented |

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

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

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

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

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

Exposure assessment (human): : Not applicable.

Exposure estimation and reference to its source : Not applicable.

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

| | |
|--------------------|--|
| Environment | : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions 0.0000085 Maximum Risk Characterisation Ratios for waste water emissions 0.0016 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| Health | : Available hazard data do not 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)

Industrial

Identification of the substance or mixture

Product definition : UVCB
Code : 1168357
Product name : PC FLUIDS ESCAID 100 (EU)

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**

| | |
|--|---|
| 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 | : Predominantly hydrophobic Substance is complex UVCB. |
| Amounts used | : Annual site tonnage (tonnes/year): 74 tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 1 Maximum daily site tonnage (kg/day): 7 400 kg/day Regional use tonnage (tonnes/year): 74 tonnes/year |
| Frequency and duration of use | : Continuous release Emission days (days per year): 10 days per year |
| Environment factors not influenced by risk management | : Local freshwater dilution factor: 10 Local marine water dilution factor: 100 |
| Other operational conditions of use affecting environmental exposure | : Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 0.005 Release fraction to soil from process (initial release prior to RMM): 0.0001 Release fraction to wastewater from process (initial release prior to RMM): 0.00002 |
| Technical conditions and measures at process level (source) to prevent release | : Common practices vary across sites thus conservative process release estimates used. |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil | : If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: 0 % No secondary wastewater treatment required. Risk from environmental exposure is driven by freshwater sediment. Treat air emission to provide a typical removal efficiency of: 0 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: 0 % |

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| | |
|--|--|
| Organisational measures to prevent/limit release from site | : Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sludge should be incinerated, contained or reclaimed. |
| Conditions and measures related to municipal sewage treatment plant | : Assumed domestic sewage treatment plant flow: 2 000 m ³ /day Estimated substance removal from wastewater via municipal sewage treatment: 86.9 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 140 000 kg/day Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 86.9 % |
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| Conditions and measures related to external recovery of waste | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |

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

General measures (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.

| | |
|--|--|
| Product characteristics | : Liquid |
| Concentration of substance in mixture or article | : Covers percentage substance in the product up to 100 %. |
| Frequency and duration of use/exposure | : Covers daily exposures up to 8 hours (unless stated differently) |
| Other operational conditions affecting worker exposure | : No exposure assessment presented for human health. |
| Conditions and measures related to personal protection, hygiene and health evaluation | |
| Advice on general occupational hygiene | : Assumes a good basic standard of occupational hygiene is implemented |

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

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

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

Exposure estimation and reference to its source : ESVOC SPERC 2.2.v1

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

Exposure assessment (human): : Not applicable.

Exposure estimation and reference to its source : Not applicable.

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

| | |
|--------------------|---|
| Environment | : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions 0.00003 Maximum Risk Characterisation Ratios for waste water emissions 0.054 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| Health | : Available hazard data do not 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)

Industrial

Identification of the substance or mixture

Product definition : UVCB
Code : 1168357
Product name : PC FLUIDS ESCAID 100 (EU)

Section 1 - Title

Short title of the exposure scenario : Use in laboratories - Industrial
List of use descriptors : **Identified use name:** Use in laboratories - Industrial
Process Category: PROC10, PROC15
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02, ERC04
Environmental contributing scenarios : **General exposures** - ERC02, ERC04
Health Contributing scenarios : **General measures applicable to all activities** - PROC10, PROC15

| | |
|---|--|
| Processes and activities covered by the exposure scenario | : Use of the substance within laboratory settings, including material transfers and equipment cleaning |
|---|--|

Section 2 - Exposure controls

| | |
|---|--|
| Contributing scenario controlling environmental exposure for 1: General exposures | |
| Product characteristics | : Predominantly hydrophobic Substance is complex UVCB. |
| Amounts used | : Annual site tonnage (tonnes/year): 0.1 tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 1 Maximum daily site tonnage (kg/day): 5 kg/day Regional use tonnage (tonnes/year): 0.1 tonnes/year |
| Frequency and duration of use | : Continuous release Emission days (days per year): 20 days per year |
| Environment factors not influenced by risk management | : Local freshwater dilution factor: 10 Local marine water dilution factor: 100 |
| Other operational conditions of use affecting environmental exposure | : Release fraction to air from process (initial release prior to RMM): 0.025 Release fraction to soil from process (initial release prior to RMM): 0.0001 Release fraction to wastewater from process (initial release prior to RMM): 0.02 |
| Technical conditions and measures at process level (source) to prevent release | : Common practices vary across sites thus conservative process release estimates used. |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil | : If discharging to municipal sewage treatment plant, no on-site wastewater treatment required. If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: 0 % No secondary wastewater treatment required. Risk from environmental exposure is driven by freshwater sediment. Treat air emission to provide a typical removal efficiency of: 0 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: 0 % |
| Organisational measures to prevent/limit release from site | : Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sludge should be incinerated, contained or reclaimed. |

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| | |
|--|--|
| Conditions and measures related to municipal sewage treatment plant | : Assumed domestic sewage treatment plant flow: 2 000 m ³ /day Estimated substance removal from wastewater via municipal sewage treatment: 86.9 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 140 kg/day Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 86.9 % |
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| Conditions and measures related to external recovery of waste | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |

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

General measures (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.

| | |
|--|--|
| Product characteristics | : Liquid |
| Concentration of substance in mixture or article | : Covers percentage substance in the product up to 100 %. |
| Frequency and duration of use/exposure | : Covers daily exposures up to 8 hours (unless stated differently) |
| Other operational conditions affecting worker exposure | : No exposure assessment presented for human health. |
| Conditions and measures related to personal protection, hygiene and health evaluation | |
| Advice on general occupational hygiene | : Assumes a good basic standard of occupational hygiene is implemented |

Section 3 - Exposure estimation and reference to its source

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

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

| | |
|--|--|
| Exposure assessment (environment): | : Hydrocarbon Block Method (Petrorisk) |
| Exposure estimation and reference to its source | : Not available. |

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

| | |
|--|-------------------|
| Exposure assessment (human): | : Not applicable. |
| Exposure estimation and reference to its source | : Not applicable. |

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

| | |
|--------------------|---|
| Environment | : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions 0.0000087 Maximum Risk Characterisation Ratios for waste water emissions 0.037 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| Health | : Available hazard data do not 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 : 1168357
Product name : PC FLUIDS ESCAID 100 (EU)

Section 1 - Title

Short title of the exposure scenario : Use in laboratories - Professional
List of use descriptors : **Identified use name:** Use in laboratories - Professional
Process Category: PROC10, PROC15
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a
Environmental contributing scenarios : **General exposures - ERC08a**
Health Contributing scenarios : **General measures applicable to all activities - PROC10, PROC15**

| | |
|---|---|
| Processes and activities covered by the exposure scenario | : Use of small quantities within laboratory settings, including material transfers and equipment cleaning |
|---|---|

Section 2 - Exposure controls

| | |
|---|---|
| Contributing scenario controlling environmental exposure for 1: General exposures | |
| Product characteristics | : Predominantly hydrophobic Substance is complex UVCB. |
| Amounts used | : Annual site tonnage (tonnes/year): 0.00005 tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 1 Maximum daily site tonnage (kg/day): 0.00014 kg/day Regional use tonnage (tonnes/year): 0.1 tonnes/year |
| Frequency and duration of use | : Continuous release Emission days (days per year): 365 days per year |
| Environment factors not influenced by risk management | : Local freshwater dilution factor: 10 Local marine water dilution factor: 100 |
| Other operational conditions of use affecting environmental exposure | : Release fraction to air from process (initial release prior to RMM): 0.5 Release fraction to air from wide dispersive use (regional only): 0.5 Release fraction to soil from process (initial release prior to RMM): 0 Release fraction to soil from wide dispersive use (regional only): 0 Release fraction to wastewater from process (initial release prior to RMM): 0.5 Release fraction to wastewater from wide dispersive use: 0.5 |
| Technical conditions and measures at process level (source) to prevent release | : Common practices vary across sites thus conservative process release estimates used. |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil | : If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: 0 % No secondary wastewater treatment required. Risk from environmental exposure is driven by freshwater. Treat air emission to provide a typical removal efficiency of: 0 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: 0 % |

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| Organisational measures to prevent/limit release from site | : Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sludge should be incinerated, contained or reclaimed. |
| Conditions and measures related to municipal sewage treatment plant | : Assumed domestic sewage treatment plant flow: 2 000 m ³ /day Estimated substance removal from wastewater via municipal sewage treatment: 86.9 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 0.035 kg/day Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 86.9 % |
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| Conditions and measures related to external recovery of waste | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |

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

General measures (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.

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| Product characteristics | : Liquid |
| Concentration of substance in mixture or article | : Covers percentage substance in the product up to 100 %. |
| Frequency and duration of use/exposure | : Covers daily exposures up to 8 hours (unless stated differently) |
| Other operational conditions affecting worker exposure | : No exposure assessment presented for human health. |
| Conditions and measures related to personal protection, hygiene and health evaluation | |
| Advice on general occupational hygiene | : Assumes a good basic standard of occupational hygiene is implemented |

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

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

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

Exposure estimation and reference to its source : ESVOC SPERC 8.17.v1

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

Exposure assessment (human): : 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

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| Environment | : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions 0.000028 Maximum Risk Characterisation Ratios for waste water emissions 0.0016 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| Health | : Available hazard data do not 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

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| 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 : 1168357
Product name : PC FLUIDS ESCAID 100 (EU)

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**

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| 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. |
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Section 2 - Exposure controls

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| Contributing scenario controlling environmental exposure for 1: General exposures | |
| Product characteristics | : Predominantly hydrophobic Substance is complex UVCB. |
| Amounts used | : Annual site tonnage (tonnes/year): 10 tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 1 Maximum daily site tonnage (kg/day): 500 kg/day Regional use tonnage (tonnes/year): 10 tonnes/year |
| Frequency and duration of use | : Continuous release Emission days (days per year): 20 days per year |
| Environment factors not influenced by risk management | : Local freshwater dilution factor: 10 Local marine water dilution factor: 100 |
| Other operational conditions of use affecting environmental exposure | : Release fraction to air from process (initial release prior to RMM): 0.25 Release fraction to soil from process (initial release prior to RMM): 0.05 Release fraction to wastewater from process (initial release prior to RMM): 0.5 |
| Technical conditions and measures at process level (source) to prevent release | : Common practices vary across sites thus conservative process release estimates used. |
| Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil | : If discharging to municipal sewage treatment plant, no on-site wastewater treatment required. If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of: 98.9 % No secondary wastewater treatment required. Risk from environmental exposure is driven by freshwater. Treat air emission to provide a typical removal efficiency of: 80 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of: 99.9 % |

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| Organisational measures to prevent/limit release from site | : Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sludge should be incinerated, contained or reclaimed. |
| Conditions and measures related to municipal sewage treatment plant | : Assumed domestic sewage treatment plant flow: 2 000 m ³ /day Estimated substance removal from wastewater via municipal sewage treatment: 86.9 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (MSafe) (kg/d): [Assumed domestic sewage treatment plant flow]: 500 kg/day Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 99.9 % |
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |
| Conditions and measures related to external recovery of waste | : External treatment and disposal of waste should comply with applicable local and/or national regulations. |

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

General measures (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.

| | |
|--|--|
| Product characteristics | : Liquid |
| Concentration of substance in mixture or article | : Covers percentage substance in the product up to 100 %. |
| Frequency and duration of use/exposure | : Covers daily exposures up to 8 hours (unless stated differently) |
| Other operational conditions affecting worker exposure | : No exposure assessment presented for human health. |
| Conditions and measures related to personal protection, hygiene and health evaluation | |
| Advice on general occupational hygiene | : Assumes a good basic standard of occupational hygiene is implemented |

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

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

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

Exposure estimation and reference to its source : ESVOC SPERC 4.23.v1

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 applicable.

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

| | |
|--------------------|---|
| Environment | : Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions 0.000038 Maximum Risk Characterisation Ratios for waste water emissions 0.91 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. |
| Health | : Available hazard data do not 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. |

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