

Safety Data Sheet

Shell Catenex Oil S 925**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING**

Product Code 901L2652
Infosafe No. ACMUM CH/eng/C
Issued Date 11.12.2007
Product Type/Use Process oil.

| Other Names | Name | Code |
|--------------------|-------------------------|--------------|
| | Shell Catenex Oil S 925 | 140001790433 |

| Supplier | Telephone Numbers |
|--|--|
| Shell Aseol AG Steigerhubelstrasse 8 CH-3000 Bern 5 SWITZERLAND | Emergency Tel. 145 Telephone/Fax Number Tel: +41 (0)31 380 7777 Fax: +41 (0)31 380 7878 |

Swiss Product Code
74-1052.

2. COMPOSITION/INFORMATION ON INGREDIENTS**Preparation Description**

Highly refined mineral oils. The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

3. HAZARDS IDENTIFICATION

| | |
|--------------------------|--|
| EC Classification | Not classified as Dangerous under EC criteria. |
|--------------------------|--|

Human Health Hazards

No specific hazards under normal use conditions. Prolonged or repeated exposure may give rise to dermatitis. Used oil may contain harmful impurities.

Safety Hazards

Not classified as flammable, but will burn.

Environmental Hazards

Not classified as dangerous for the environment.



4. FIRST AID MEASURES

Symptoms and Effects

Not expected to give rise to an acute hazard under normal conditions of use.

Inhalation

In the unlikely event of dizziness or nausea, remove casualty to fresh air. If symptoms persist, obtain medical attention.

Skin

Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

Eye

Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Ingestion

Wash out mouth with water and obtain medical attention. Do not induce vomiting.

Advice to Doctor

Treat symptomatically. Aspiration into the lungs may result in chemical pneumonitis. Dermatitis may result from prolonged or repeated exposure. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function.

5. FIRE FIGHTING MEASURES

Specific Hazards

Combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds.

Extinguishing Media

Foam and dry chemical powder. Carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media

Water in jet. Use of halon extinguishers should be avoided for environmental reasons.

Protective Equipment

Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid contact with skin and eyes. Wear PVC, Neoprene or nitrile rubber gloves. Wear rubber knee length safety boots and PVC Jacket and Trousers. Wear safety glasses or full face shield if splashes are likely to occur.

Environmental Precautions

Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Inform local authorities if this cannot be prevented.

Clean-up Methods - Small Spillages

Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.



Clean-up Methods - Large Spillages

Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Dispose of as for small spills.

7. HANDLING AND STORAGE**Handling**

Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Avoid prolonged or repeated contact with skin. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Prevent spillages. Cloth, paper and other materials that are used to absorb spills present a fire hazard. Avoid their accumulation by disposing of them safely and immediately. In addition to any specific recommendations given for controls of risks to health, safety and the environment, an assessment of risks must be made to help determine controls appropriate to local circumstances.

Storage

Keep in a cool, dry, well-ventilated place. Use properly labelled and closeable containers. Avoid direct sunlight, heat sources, and strong oxidizing agents.

Storage Temperatures

0°C Minimum. 50°C Maximum.

Recommended Materials

For containers or container linings, use mild steel or high density polyethylene.

Unsuitable Materials

For containers or container linings, avoid PVC.

Other Information

Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

BVD Code

F. 4. I. Fu. PN3.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION**Exposure Limits**

| Substance | Regulations | Exposure Duration | Exposure Limit | Units | Notes |
|------------------------------------|-------------|-------------------|----------------|-------------------|-------|
| Mineralölnebel, einatembarer staub | SUVA MAK | TWA | 5 | mg/m ³ | |

SUVA MAK SUVA. Grenzwerte am Arbeitsplatz [Limit Values at the Workplace] SUVA-Publikation, 2005.

Exposure Controls

The choice of personal protective equipment is highly dependent upon local conditions, e.g. exposure to other chemical substances and micro-organisms, thermal hazards (protection from extremes of cold and heat), electrical hazards, mechanical hazards and appropriate degree of manual dexterity required to undertake an activity.

Whilst the content of this section may inform the choice of personal protective equipment used, the limitations of any information which can be provided must be fully understood, e.g. personal protective equipment chosen to protect employees from occasional splashes maybe entirely inadequate for activities involving partial or complete immersion. If the levels of oil mist or vapour in air are likely to exceed the occupational exposure standards then consideration should be given to the use of local exhaust ventilation to reduce personal exposure.

The choice of personal protective equipment should only be undertaken in the light of a full risk assessment by a suitably qualified competent person (e.g. a professionally qualified occupational hygienist).



Effective protection is only achieved by correctly fitting and well maintained equipment and employers should ensure that appropriate training is given. All personal protective equipment should be regularly inspected and replaced if defective.

Respiratory Protection

At standard temperature and pressure, the Occupational Exposure Standard for oil vapour is unlikely to be exceeded. Care should be taken to keep exposures below applicable occupational exposure limits. If this cannot be achieved, use of a respirator fitted with an organic vapour cartridge combined with a particulate pre-filter should be considered. Half masks (EN 149) or valved half masks (EN 405) in combination with type A2 (EN 141) and P2/3 (EN 143) pre-filters may be considered.

Hand Protection

Chemical protective gloves are made from a wide range of materials, but there is no single glove material (or combination of materials) which gives unlimited resistance to any individual or combination of substances or preparations. The extent of the breakthrough time will be affected by a combination of factors which include permeation, penetration, degradation, use pattern (full immersion, occasional contacts) and how the glove is stored when not in use.

Theoretical maximum levels of protection are seldom achieved in practice and the actual level of protection can be difficult to assess. Nitrile gloves may offer relatively long breakthrough times and slow permeation rates. Test data, e.g breakthrough data obtained through test standard EN374-3:1994 are available from reputable equipment suppliers.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. A non perfumed moisturiser should be applied.

Eye Protection

Goggles conforming to a minimum standard of EN 166 345B should be considered if there is a possibility of eye contact with the product through splashing. Higher rated eye protection must be considered for highly hazardous operations or work areas. For example, employees involved in metalworking operations such as chipping, grinding or cutting may require additional protection to avert injury from fast moving particles or broken tools.

Body Protection

Minimise all forms of skin contact. Overalls and shoes with oil resistant soles should be worn. Launder overalls and undergarments regularly.

Environmental Exposure Controls

Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--|
| Colour | Amber. |
| Physical State | Liquid at ambient temperature. |
| Odour | Characteristic mineral oil. |
| pH Value | Data not available. |
| Vapour Pressure | <0.5 Pa at 20°C. |
| Initial Boiling Point | >280°C. |
| Solubility in Water | Negligible. |
| Density | 867 kg/m ³ at 15°C. |
| Flash Point | 220°C (COC). |
| Flammable Limits - Upper | 10%(V/V) (typical). |
| Flammable Limits - Lower | 1%(V/V) (typical). |
| Auto-Ignition Temperature | Data not available. |
| Kinematic Viscosity | 30 mm ² /s at 40°C. |
| Vapour Density (Air=1) | >1. |
| Partition co-efficient, n-octanol/water | Log Pow expected to be greater than 6. |
| Pour Point | -15°C. |



10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Materials to Avoid

Strong oxidizing agents.

Hazardous Decomposition Products

Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment

Toxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products.

Acute Toxicity - Oral

LD50 expected to be > 2000 mg/kg.

Acute Toxicity - Dermal

LD50 expected to be > 2000 mg/kg.

Acute Toxicity - Inhalation

Not considered to be an inhalation hazard under normal conditions of use.

Eye Irritation

Expected to be slightly irritating.

Skin Irritation

Expected to be slightly irritating.

Respiratory Irritation

If mists are inhaled, slight irritation of the respiratory tract may occur.

Skin Sensitisation

Not expected to be a skin sensitizer.

Carcinogenicity

Product is based on mineral oils of types shown to be non-carcinogenic in animal skin-painting studies.

Mutagenicity

Not considered to be a mutagenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

Other Information

Prolonged and/or repeated contact with this product can result in defatting of the skin, particularly at elevated temperatures. This can lead to irritation and possibly dermatitis, especially under conditions of poor personal hygiene. Skin contact should be minimised. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed. Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible.

12. ECOLOGICAL INFORMATION

Basis for Assessment

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Mobility

Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

Persistence / Degradability

Not expected to be readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.

Bioaccumulation

Contains components with the potential to bioaccumulate.

Ecotoxicity

Poorly soluble mixture. May cause physical fouling of aquatic organisms. Product is expected to be practically non-toxic to aquatic organisms, LL/EL50 >100 mg/l. (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

Other Adverse Effects

Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Recycle or dispose of in accordance with prevailing regulations, by a recognised collector or contractor. The competence of the contractor to deal satisfactorily with this type of product should be established beforehand. Do not pollute the soil, water or environment with the waste product.

Product Disposal

As for waste disposal.

Container Disposal

Recycle or dispose of in accordance with the legislation in force with a recognised collector or contractor.

14. TRANSPORT INFORMATION

Transport Information

Not dangerous for transport under ADR/RID, IMO and IATA/ICAO regulations.

ADR/RID Class

None Allocated

ADR/RID Packing Group

None Allocated

IMDG Hazard Class

None Allocated

IMDG Packing Group

None Allocated



IATA Hazard Class

None Allocated

IATA Packing Group

None Allocated

15. REGULATORY INFORMATION

| | |
|------------------|--|
| EC Symbols | None. |
| EC Risk Phrase | Not classified. |
| EC Safety Phrase | Not classified. |
| EINECS | All components listed or polymer exempt. |
| TSCA (USA) | All components listed. |

Packaging & Labelling

Safety data sheet available for professional user on request.

Water Endangerment Class (WGK)

WGK 1 (VwVwS 5/99, APPENDIX 2).

16. OTHER INFORMATION**Revisions Highlighted**

Because of a new system the version number was reset.

References

67/548/EEC - Dangerous Substances Directive.

1999/45/EC - Dangerous Preparations Directive.

91/155/EEC - Safety Data Sheet Directive.

98/24/EC - Protection of the Health and Safety of Workers from risks related to chemical agents at work.

89/686/EEC - Approximation of the laws of the member of states relating to personal protective equipment.

76/769/EEC - Restrictions of the marketing and use.

Relevant Comité Européen de Normalisation (CEN) standards giving specific requirements for personal protective equipment.

European Model Code of Safe Practice in the Storage and Handling of Petroleum Products

Concawe Report 01/53 - Classification and labelling of petroleum substances according to the EU dangerous substances directive.

Concawe Report 03/82 - Precautionary Advice on the Handling of Used Engine Oils

Concawe Report 01/97 - Petroleum Products - First Aid and Emergency Advice

Concawe Report 86/89 - Health Aspects of Workers Exposure to Oil Mists

Concawe Report 01/54 - Environmental Classification of Petroleum Substances - Summary Data and Rationale

EN 374-2:1994 Protective gloves against chemicals and micro-organisms

EN 149:2001 Respiratory protective devices - filtering half masks to protect against particles - requirements, testing, marking

EN 405:1992 Respiratory protective devices - valved filtering half masks to protect against gases or vapours and particles - requirements, testing, marking

EN 141:2000 Respiratory protective devices - gas filters and combined filters - requirements, testing, marking

EN 143:2000 Respiratory protective devices - particle filters - requirements, testing, marking

EN 166:1995 Personal eye-protection - specification.

Restrictions

This product must not be used in applications other than recommended without first seeking the advice of the SHELL technical department.

Technical Contact Numbers

+41 (0)31 380 7777



Further Information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It does not constitute a guarantee for any specific property of the product.

... **End Of SDS** ...

