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|----------|-----|
| 10101011 | 2.0 |

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

#### 1.1 Product identifier

| Trade name<br>Product code<br>CAS-No.   | <ul> <li>Shell Refrigeration Oil S4 FR-V 32</li> <li>001D8398</li> <li>68855-24-3</li> </ul> |  |  |
|---|--|--|--|
| 1.2 Relevant identified uses of the substance or mixture and uses advised against |  |  |  |

| Use of the           | Refrigerator oil.  |
|----------------------|--|
| Substance/Mixture    | Please refer to Ch16 for the registered uses under REACH.  |
| Uses advised against | This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier. |

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

| Manufacturer/Supplier                    | <ul> <li>Shell UK Oil Products Limited</li> <li>Shell Centre</li> <li>London</li> <li>SE1 7NA</li> <li>United Kingdom</li> </ul> |
|--|--|
| Telephone                                | : (+44) 08007318888  |
| Telefax<br>Email Contact for Safety Data | :<br>If you have any enquiries about the content of this SDS   |
| Sheet                                    | please email lubricantSDS@shell.com  |

#### 1.4 Emergency telephone number

: +44-(0) 151-350-4595

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

| Chronic aquatic toxicity, Category 4 | H4 |
|--------------------------------------|----|
|--------------------------------------|----|

H413: May cause long lasting harmful effects to aquatic life.

#### Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment

R53: May cause long-term adverse effects in the aquatic environment.

#### 2.2 Label elements

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| Labelling (REGULATION (EC) No 1272/2008) |   |   |                         |  |
| Hazard pictograms :                      | No Hazard Symbol required   |   |                         |  |
| Signal word :                            | No signal word  |   |                         |  |
| Hazard statements :                      | H413  | PHYSICAL HAZARDS:<br>Not classified as a physic<br>according to CLP criteria.<br>HEALTH HAZARDS:<br>Not classified as a health<br>criteria.<br>ENVIRONMENTAL HAZ/<br>May cause long lasting he<br>aquatic life. | hazard under CLP        |  |
| Precautionary statements :               | Prevention:<br>P273<br>Response:<br>Storage:<br>Disposal:<br>P501 | Avoid release to the envir<br>No precautionary phrases<br>No precautionary phrases<br>Dispose of contents/ cont<br>approved waste disposal  | s.<br>s.<br>ainer to an |  |

#### 2.3 Other hazards

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.

High-pressure injection under the skin may cause serious damage including local necrosis. Not classified as flammable but will burn.

#### **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

#### Hazardous components

| Chemical Name          | CAS-No.<br>EC-No.       | Concentration [%] |
|------------------------|-------------------------|-------------------|
| Alkylbenzene (C14-C30) | 68855-24-3<br>272-472-8 | <= 100            |

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

| Shell Reingeration OII 54 FR-V 32   |   |   |  |  |
|-------------------------------------|---|---|--|--|
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| General advice :                    | Not expected to be a health hazard when used under normal conditions.   |   |  |  |
| Protection of first-aiders :        | When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.   |   |  |  |
| If inhaled :                        | No treatment necessary under normal conditions of use.<br>If symptoms persist, obtain medical advice.   |   |  |  |
| In case of skin contact :           | Remove contaminated clothing. Flush exp<br>water and follow by washing with soap if a<br>If persistent irritation occurs, obtain medic  | available.  |  |  |
|                                     | When using high pressure equipment, inju-<br>under the skin can occur. If high pressure<br>casualty should be sent immediately to a<br>for symptoms to develop.<br>Obtain medical attention even in the abse-<br>wounds.  | injuries occur, the hospital. Do not wait   |  |  |
| In case of eye contact :            | Flush eye with copious quantities of wate<br>If persistent irritation occurs, obtain medic  |   |  |  |
| If swallowed :                      | In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.  |   |  |  |
| 4.2 Most important symptoms and e   | ffects, both acute and delayed  |   |  |  |
| Symptoms :                          | Oil acne/folliculitis signs and symptoms m<br>of black pustules and spots on the skin of<br>Ingestion may result in nausea, vomiting a  | exposed areas.  |  |  |
|                                     | Local necrosis is evidenced by delayed or<br>tissue damage a few hours following inject   |   |  |  |
| 4.3 Indication of any immediate med | lical attention and special treatment nee   | eded  |  |  |
| Treatment :                         | Notes to doctor/physician:<br>Treat symptomatically.  |   |  |  |
|                                     | High pressure injection injuries require printervention and possibly steroid therapy damage and loss of function.<br>Because entry wounds are small and do a seriousness of the underlying damage, su determine the extent of involvement may anaesthetics or hot soaks should be avoid can contribute to swelling, vasospasm an surgical decompression, debridement and foreign material should be performed und anaesthetics, and wide exploration is essential and an an estimation and an exploration is essential and explore an explo | , to minimise tissue<br>not reflect the<br>urgical exploration to<br>be necessary. Local<br>ded because they<br>d ischaemia. Prompt<br>d evacuation of<br>ler general |  |  |

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#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

| Suitable extinguishing media<br>Unsuitable extinguishing<br>media<br><b>5.2 Special hazards arising from</b> | <ul> <li>Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.</li> <li>Do not use water in a jet.</li> </ul>  |
|--|---|
| 5.2 Opecial nazarus ansing nom   |   |
| Specific hazards during firefighting   | : Hazardous combustion products may include: A complex<br>mixture of airborne solid and liquid particulates and gases<br>(smoke). Carbon monoxide may be evolved if incomplete<br>combustion occurs. Unidentified organic and inorganic<br>compounds.   |
| 5.3 Advice for firefighters  |   |
| Special protective equipment for firefighters  | : Proper protective equipment including chemical resistant<br>gloves are to be worn; chemical resistant suit is indicated if<br>large contact with spilled product is expected. Self-Contained<br>Breathing Apparatus must be worn when approaching a fire in<br>a confined space. Select fire fighter's clothing approved to<br>relevant Standards (e.g. Europe: EN469). |
| Specific extinguishing methods   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.   |

#### **SECTION 6: Accidental release measures**

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

| Personal precautions | 6.1.1 For non emergency<br>Avoid contact with skin a  | •        |
|----------------------|---|----------|
|                      | 6.1.2 For emergency resp<br>Avoid contact with skin a | ponders: |

#### **6.2 Environmental precautions**

| Environmental precautions | : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. |
|---------------------------|---|
|---------------------------|---|

Local authorities should be advised if significant spillages cannot be contained.

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|---|--|---|--|--|
| 6.3 Methods and materials for containment and cleaning up |  |   |  |  |
| Methods for cleaning up                                   | : Slippery when spilt. Avoid accide<br>Prevent from spreading by makir<br>or other containment material.<br>Reclaim liquid directly or in an ab<br>Soak up residue with an absorbe<br>suitable material and dispose of | ng a barrier with sand, earth<br>psorbent.<br>ent such as clay, sand or other |  |  |

#### 6.4 Reference to other sections

For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

#### **SECTION 7: Handling and storage**

| General Precautions                  | <ul> <li>Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.</li> <li>Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.</li> </ul>                     |
|--------------------------------------|---|
| 7.1 Precautions for safe handling    |   |
| Advice on safe handling              | <ul> <li>Avoid prolonged or repeated contact with skin.</li> <li>Avoid inhaling vapour and/or mists.</li> <li>When handling product in drums, safety footwear should be worn and proper handling equipment should be used.</li> <li>Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.</li> </ul> |
| 7.2 Conditions for safe storage, inc | cluding any incompatibilities   |
| Other data                           | <ul> <li>Keep container tightly closed and in a cool, well-ventilated<br/>place. Use properly labeled and closable containers.</li> </ul>   |
|                                      | Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.   |
|                                      | The storage of this product may be subject to the Control of Pollution (Oil Storage) (England) Regulations. Further guidance may be obtained from the local environmental agency office.  |
| Packaging material                   | <ul> <li>Suitable material: For containers, or container linings use mild<br/>steel.</li> <li>Unsuitable material: For containers or container linings avoid<br/>PVC, polyethylene or high density polyethylene.</li> </ul>   |
| 7.3 Specific end use(s)              |   |
| Specific use(s)                      | <ul> <li>Please refer to Ch16 and/or the annexes for the registered<br/>uses under REACH.</li> </ul>  |
| 5 / 19                               | 800001015819  |

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#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

#### **Biological occupational exposure limits**

No biological limit allocated.

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

#### **Monitoring Methods**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

#### 8.2 Exposure controls

**Engineering measures** The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

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General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

#### Personal protective equipment

The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

| Eye protection  | : If material is handled such that it could be splashed into eyes,<br>protective eyewear is recommended.<br>Approved to EU Standard EN166.  |
|-----------------|---|
| Hand protection |   |
| Remarks         | <ul> <li>Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. 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. Application of a non-perfumed moisturizer is recommended.</li> <li>For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for &gt; 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm</li> </ul> |
|                 |   |

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|                           | depending on the glove make an  | nd model.  |
| Skin and body protection  | <ul> <li>Skin protection is not ordinarily rework clothes.</li> <li>It is good practice to wear chemic</li> </ul>   |  |
| Respiratory protection    | : No respiratory protection is ordin<br>conditions of use.<br>In accordance with good industria<br>precautions should be taken to a<br>If engineering controls do not ma<br>concentrations to a level which is<br>health, select respiratory protecti<br>specific conditions of use and me<br>Check with respiratory protective<br>Where air-filtering respirators are<br>appropriate combination of mask<br>Select a filter suitable for combin<br>and vapours [Type A/Type P boil<br>meeting EN14387 and EN143. | al hygiene practices,<br>avoid breathing of material.<br>aintain airborne<br>s adequate to protect worker<br>ion equipment suitable for the<br>eeting relevant legislation.<br>e equipment suppliers.<br>e suitable, select an<br>c and filter.<br>hed particulate/organic gases |
| Thermal hazards           | : Not applicable  |  |
| Hygiene measures          | : Exposure to this product should l<br>reasonably practicable. Reference<br>Health and Safety Executive's pu<br>Essentials".  | ce should be made to the   |
| Environmental exposure co | ntrols  |  |
| General advice            | : Take appropriate measures to fur<br>relevant environmental protection<br>contamination of the environmen<br>Chapter 6. If necessary, prevent<br>being discharged to waste water,<br>treated in a municipal or industriat<br>before discharge to surface wate<br>Local guidelines on emission limit<br>must be observed for the dischar<br>vapour.   | n legislation. Avoid<br>at by following advice given in<br>t undissolved material from<br>. Waste water should be<br>al waste water treatment plant<br>er.<br>its for volatile substances  |

### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

| Colour | : colourless |
|--------|--------------|
|        |              |

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|--|--|----------------------|
| Odour                                      | : Slight hydrocarbon                       |                      |
| Odour Threshold                            | : Data not available                       |                      |
| рН   | : Not applicable                           |                      |
| pour point                                 | : -45 °CMethod: Unspecified                |                      |
| Initial boiling point and boiling range    | : > 280 °Cestimated value(s)               |                      |
| Flash point                                | : 180 °C<br>Method: Unspecified            |                      |
| Evaporation rate                           | : Data not available                       |                      |
| Flammability (solid, gas)                  | : Data not available                       |                      |
| Upper explosion limit                      | : Typical 10 %(V)                          |                      |
| Lower explosion limit                      | : Typical 1 %(V)                           |                      |
| Vapour pressure                            | : < 0.5 Pa (20 °C)<br>estimated value(s)   |                      |
| Relative vapour density                    | : > 1estimated value(s)                    |                      |
| Relative density                           | : 0.870 (15 °C)                            |                      |
| Density                                    | : 870 kg/m3 (15.0 °C)<br>Method: ISO 12185 |                      |
| Solubility(ies)                            |  |                      |
| Water solubility                           | : negligible                               |                      |
| Solubility in other solvents               | : Data not available                       |                      |
| Partition coefficient: n-<br>octanol/water | : Pow: > 6(based on information            | on similar products) |
| Auto-ignition temperature                  | : ><br>320 °C                              |                      |
| Viscosity                                  |  |                      |
| Viscosity, dynamic                         | : Data not available                       |                      |
| Viscosity, kinematic                       | : 29 mm2/s (40.0 °C)<br>Method: ISO 3104   |                      |
|  | 4.1 mm2/s (100 °C)<br>Method: ISO 3104     |                      |

| J                         |   |                       |
|---------------------------|---|-----------------------|
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| Explosive properties      | : Not classified                        |                       |
| Oxidizing properties      | : Data not available                    |                       |
| 9.2 Other information     |   |                       |
| Conductivity              | : This material is not expected to be a | static accumulator.   |
| Decomposition temperature | : Data not available                    |                       |

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

#### 10.2 Chemical stability

Stable. No hazardous reaction is expected when handled and stored according to provisions

#### **10.3 Possibility of hazardous reactions**

| Hazardous reactions                 | :   | Reacts with strong oxidising agents.   |
|-------------------------------------|-----|--|
| 10.4 Conditions to avoid            |     |  |
| Conditions to avoid                 | :   | Extremes of temperature and direct sunlight.                                     |
| 10.5 Incompatible materials         |     |  |
| Materials to avoid                  | :   | Strong oxidising agents.   |
| 10.6 Hazardous decomposition p      | roc | ducts  |
| Hazardous decomposition<br>products | :   | Hazardous decomposition products are not expected to form during normal storage. |

#### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

| Basis for assessment                     | : | Information given is based on data on the components and the toxicology of similar products.                        |
|--|---|---|
| Information on likely routes of exposure | : | Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion. |

#### Acute toxicity

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|------|---|

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| Product:                  |   |                       |
| Acute oral toxicity       | : LD50 rat: > 5,000 mg/kg<br>Remarks: Expected to be of low toxicity:               |                       |
| Acute inhalation toxicity | : LC 50 Rat: > 5 mg/l<br>Exposure time: 4 h<br>Remarks: Low toxicity by inhalation. |                       |
| Acute dermal toxicity     | : LD50 Rabbit: > 5,000 mg/kg<br>Remarks: Expected to be of low toxicity:            |                       |

#### Skin corrosion/irritation

#### Product:

Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

#### Serious eye damage/eye irritation

#### Product:

Remarks: Expected to be slightly irritating.

#### Respiratory or skin sensitisation

#### Product:

Remarks: For respiratory and skin sensitisation:, Not expected to be a sensitiser.

#### Germ cell mutagenicity

#### Product:

: Remarks: Not considered a mutagenic hazard.

#### Carcinogenicity

#### Product:

Remarks: Not expected to be carcinogenic.

| Material               | GHS/CLP Carcinogenicity Classification |
|------------------------|--|
| Alkylbenzene (C14-C30) | No carcinogenicity classification.     |

#### **Reproductive toxicity**

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#### Product:

Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

#### STOT - single exposure

#### Product:

Remarks: Not expected to be a hazard.

#### STOT - repeated exposure

#### Product:

Remarks: Not expected to be a hazard.

#### Aspiration toxicity

#### Product:

Not considered an aspiration hazard.

#### Further information

#### Product:

Remarks: 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.

Remarks: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

Remarks: Slightly irritating to respiratory system.

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

#### Summary on evaluation of the CMR properties

| Germ cell mutagenicity-<br>Assessment | : | This product does not meet the criteria for classification in categories 1A/1B. |
|---------------------------------------|---|---|
| Carcinogenicity -<br>Assessment       | : | This product does not meet the criteria for classification in categories 1A/1B. |
| Reproductive toxicity -<br>Assessment | : | This product does not meet the criteria for classification in categories 1A/1B. |

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### **SECTION 12: Ecological information**

#### 12.1 Toxicity

| Basis for assessment   | : | Ecotoxicological data have not been determined specifically<br>for this product.<br>Information given is based on a knowledge of the components<br>and the ecotoxicology of similar products.<br>Unless indicated otherwise, the data presented is<br>representative of the product as a whole, rather than for<br>individual component(s).(LL/EL/IL50 expressed as the<br>nominal amount of product required to prepare aqueous test<br>extract). |
|--|---|--|
| Toxicity to fish (Acute toxicity)  | : | Remarks: Expected to be practically non toxic:<br>LL/EL/IL50 > 100 mg/l  |
| Toxicity to crustacean (Acute toxicity)  | : | Remarks: Expected to be practically non toxic:<br>LL/EL/IL50 > 100 mg/l  |
| Toxicity to algae/aquatic plants (Acute toxicity)                                      | : | Remarks: Expected to be practically non toxic:<br>LL/EL/IL50 > 100 mg/l  |
| Toxicity to fish (Chronic  | : | Remarks: NOEC/NOEL > 100 mg/l  |
| toxicity)<br>Toxicity to crustacean<br>(Chronic toxicity)<br>Toxicity to microscopping | : | Remarks: NOEC/NOEL > 1.0 - <=10 mg/l (based on test data)  |
| Toxicity to microorganisms<br>(Acute toxicity)   | - | Remarks: Expected to be practically non toxic:<br>LC/EC/IC50 > 100 mg/l  |

#### 12.2 Persistence and degradability

| Product:                                   |   |   |
|--|---|---|
| Biodegradability                           | : | Remarks: Major constituents are expected to be readily biodegradable, but the product contains components that may persist in the environment |
| 12.3 Bioaccumulative potential             |   |   |
| Product:                                   |   |   |
| Bioaccumulation                            | : | Remarks: Contains components with the potential to bioaccumulate.   |
| Partition coefficient: n-<br>octanol/water | : | Pow: > 6Remarks: (based on information on similar products)   |
| 12 / 10                                    |   | 80000101581   |

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| 12.4 Mobility in soil             |  |   |
| Product:                          |  |   |
| Mobility                          | <ul> <li>Remarks: Liquid under most enviro<br/>enters soil, it will adsorb to soil part<br/>mobile.</li> <li>Remarks: Floats on water.</li> </ul>  |   |
| 12.5 Results of PBT and vPvB      | assessment   |   |
| Product:                          |  |   |
| Assessment                        | <ul> <li>The substance does not fulfill all so<br/>persistence, bioaccumulation and t<br/>considered to be PBT or vPvB.</li> </ul>   |   |
| 12.6 Other adverse effects        |  |   |
| Product:                          |  |   |
| Additional ecological information | <ul> <li>Product is a mixture of non-volatile<br/>expected to be released to air in ar<br/>Not expected to have ozone deplet<br/>photochemical ozone creation pote<br/>potential.</li> <li>Films formed on water may affect of<br/>damage organisms., May cause ph<br/>organisms.</li> </ul> | ny significant quantities.,<br>tion potential,<br>ential or global warming<br>oxygen transfer and |

### **SECTION 13: Disposal considerations**

| 13.1 Waste treatment methods         |   |
|--------------------------------------|---|
| Product                              | <ul> <li>Recover or recycle if possible.</li> <li>It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.</li> <li>Do not dispose into the environment, in drains or in water courses</li> </ul> |
| Contaminated packaging               | : Dispose in accordance with prevailing regulations, preferably<br>to a recognized collector or contractor. The competence of<br>the collector or contractor should be established beforehand.<br>Disposal should be in accordance with applicable regional,<br>national, and local laws and regulations.   |
| Local legislation<br>Waste catalogue | :   |
|                                      | EU Waste Disposal Code (EWC):   |

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|-------------|--|--------------------------|
| Waste Code  | :<br>13 08 99*   |                          |
|             |  |                          |
| Remarks     | : Disposal should be in accordance with<br>national, and local laws and regulatior |                          |
|             | Classification of waste is always the reuser.                                      | esponsibility of the end |
|             | Hazardous Waste (England and Wale  | s) Regulations 2005.     |

#### **SECTION 14: Transport information**

| 14.1 UN number                    |   |  |
|-----------------------------------|---|--|
| ADR                               | : | Not regulated as a dangerous good  |
| RID                               | : | Not regulated as a dangerous good  |
| IMDG                              | : | Not regulated as a dangerous good  |
| ΙΑΤΑ                              | : | Not regulated as a dangerous good  |
| 14.2 Proper shipping name         |   |  |
| ADR                               | : | Not regulated as a dangerous good  |
| RID                               | : | Not regulated as a dangerous good  |
| IMDG                              | : | Not regulated as a dangerous good  |
| ΙΑΤΑ                              | : | Not regulated as a dangerous good  |
| 14.3 Transport hazard class       |   |  |
| ADR                               | : | Not regulated as a dangerous good  |
| RID                               | : | Not regulated as a dangerous good  |
| IMDG                              | : | Not regulated as a dangerous good  |
| ΙΑΤΑ                              | : | Not regulated as a dangerous good  |
| 14.4 Packing group                |   |  |
| ADR                               | : | Not regulated as a dangerous good  |
| RID                               | : | Not regulated as a dangerous good  |
| IMDG                              | : | Not regulated as a dangerous good  |
| ΙΑΤΑ                              | : | Not regulated as a dangerous good  |
| 14.5 Environmental hazards        |   |  |
| ADR                               | : | Not regulated as a dangerous good  |
| RID                               | : | Not regulated as a dangerous good  |
| IMDG                              | : | Not regulated as a dangerous good  |
| 14.6 Special precautions for user |   |  |
| Remarks                           | : | Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport. |

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable

| F | ollution category |  |
|---|-------------------|--|
|   |                   |  |

| 15 / 19 | 800001015819 |
|---------|--------------|
|         | GB           |

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|--|--|-----------------------|
| Ship type<br>Product name<br>Special precautions | <ul><li>Not applicable</li><li>Not applicable</li><li>Not applicable</li></ul> |                       |
| Additional Information                           | : MARPOL Annex 1 rules apply for bu  | ulk shipments by sea. |

#### **SECTION 15: Regulatory information**

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

| %  |
|--|
| Invironmental Protection Act 1990 (as amended). Health and<br>tafety at Work etc. Act 1974. Consumers Protection Act 1987.<br>Follution Prevention and Control Act 1999. Environment Act<br>995. Factories Act 1961. The Carriage of Dangerous Goods<br>and Use of Transportable Pressure Equipment (Amendment)<br>regulations 2011. Chemicals (Hazard Information and<br>tackaging for Supply) Regulations 2009. Control of<br>substances Hazardous to Health Regulations 2002 (as<br>mended). Merchant Shipping (Dangerous Goods and Marine<br>follutants) Regulations 1997. Reporting of Injuries, Diseases<br>and Dangerous Occurrences Regulations 1995 (as amended).<br>Personal Protective Equipment Regulations 2002. Personal<br>Protective Equipment at Work Regulations 1992. Hazardous<br>Vaste (England and Wales) Regulations 2005(as amended).<br>Control of Major Accident Hazards Regulations 1999 (as<br>mended). Renewable Transport Fuel Obligations Order 2007<br>as amended). Energy Act 2011. Environmental Permitting<br>England and Wales) Regulations 2010 (as amended).<br>Vaste England and Wales) Regulations 2011 (as amended).<br>Panning (Hazardous Substances) Act 1990 and associated<br>egulations. The Environmental Protection (Controls on<br>Done-Depleting Substances) Regulations 2011. |
|  |

| The components of this product are reported in the following inventories: |  |  |
|---|--|--|
| EINECS<br>TSCA  |  | All components listed or polymer exempt.<br>All components listed. |

# 15.2 Chemical Safety Assessment

A Chemical Safety Assessment was performed for this substance.

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#### **SECTION 16: Other information**

| Abbreviations and Acronyms | : | The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.   |
|----------------------------|---|--|
|                            |   | scientific dictionaries) and/or websites.<br>ACGIH = American Conference of Governmental Industrial<br>Hygienists<br>ADR = European Agreement concerning the International<br>Carriage of Dangerous Goods by Road<br>AICS = Australian Inventory of Chemical Substances<br>ASTM = American Society for Testing and Materials<br>BEL = Biological exposure limits<br>BTEX = Benzene, Toluene, Ethylbenzene, Xylenes<br>CAS = Chemical Abstracts Service<br>CEFIC = European Chemical Industry Council<br>CLP = Classification Packaging and Labelling<br>COC = Cleveland Open-Cup<br>DIN = Deutsches Institut fur Normung<br>DMEL = Derived No Effect Level<br>DSL = Canada Domestic Substance List<br>EC = European Commission<br>EC50 = Effective Concentration fifty<br>ECETOC = European Chemicals Agency<br>EINECS = The European Inventory of Existing Commercial<br>Chemical Substances<br>EL50 = Effective Loading fifty<br>ENCS = Japanese Existing and New Chemical Substances<br>Inventory<br>EWC = European Waste Code<br>GHS = Globally Harmonised System of Classification and<br>Labelling of Chemicals<br>IARC = International Agency for Research on Cancer<br>IATA = International Air Transport Association<br>IC50 = Inhibitory Concentration fifty<br>IL50 = Inhibitory Level fifty<br>IMDG = International Maritime Dangerous Goods<br>INV = Chinese Chemicals Inventory<br>IP346 = Institute of Petroleum test method N° 346 for the<br>determination of polycyclic aromatics Inventory<br>LC50 = Lethal Concentration fifty |
|                            |   | LD50 = Lethal Dose fifty per cent.<br>LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading<br>LL50 = Lethal Loading fifty<br>MARPOL = International Convention for the Prevention of<br>Pollution From Ships   |
|                            |   | NOEC/NOEL = No Observed Effect Concentration / No  |

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|--|--|---|
|  | Observed Effect Level<br>OE_HPV = Occupational Exposure<br>PBT = Persistent, Bioaccumulative a<br>PICCS = Philippine Inventory of Che<br>Substances<br>PNEC = Predicted No Effect Conce<br>REACH = Registration Evaluation A<br>Chemicals<br>RID = Regulations Relating to Interr<br>Dangerous Goods by Rail<br>SKIN_DES = Skin Designation<br>STEL = Short term exposure limit<br>TRA = Targeted Risk Assessment<br>TSCA = US Toxic Substances Cont<br>TWA = Time-Weighted Average<br>vPvB = very Persistent and very Bio | and Toxic<br>emicals and Chemical<br>ntration<br>and Authorisation Of<br>national Carriage of<br>trol Act |
| Further information  |  |   |
| Other information  | : A vertical bar ( ) in the left margin in from the previous version.  | dicates an amendment  |
| <b>Identified Uses accordin<br/>Uses - Worker</b><br>Title | g to the Use Descriptor System<br>: - Industrial   |   |
| Uses - Worker  |  | · ·   |

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|---------------------------------|--|-----------------------|--|--|
|                                 | Use as a fuel<br>Functional Fluids<br>Road and construction applications<br>Use in laboratories<br>Water treatment chemicals<br>Polymer processing |                       |  |  |
| <b>Uses - Consumer</b><br>Title | : - Consumer<br>Uses in Coatings<br>Use in Cleaning Agents<br>Lubricants<br>Use in Agrochemicals uses<br>Use as a fuel<br>Functional Fluids        |                       |  |  |

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 should not therefore be construed as guaranteeing any specific property of the product.