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|------------------|------------------------------|------|--|---|
| SECTION | 1. IDENTIFICATION | | | |
| Produ | ct name | : | Shell Hydraulic S | 1 M 46 |
| Produ | ct code | : | 001D7740 | |
| Manu | facturer or supplier's | deta | ails | |
| Manuf | acturer/Supplier | : | Shell Canada Pr 4000-500 Centre Calgary AB T2G Canada | Street SE |
| Telepl Telefa | | : | (+1) 8006611600 (+1) 4033848345 | |
| Emerç ber | gency telephone num- | : | CHEMTREC (24 (US) | hr): 1 (703) 527-3887 or 1 (800) 424-9300 |
| Recor | nmended use of the c | her | nical and restriction | ons on use |
| Recor | nmended use | : | Hydraulic oil | |

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Based on available data this substance / mixture does not meet the classification criteria.

GHS label elements

| Hazard pictograms | : No Hazard Symbol required |
|--------------------------|--|
| Signal word | : No signal word |
| Hazard statements | PHYSICAL HAZARDS: Not classified as a physical hazard under GHS criteria. HEALTH HAZARDS: Not classified as a health hazard under GHS criteria. ENVIRONMENTAL HAZARDS: Not classified as an environmental hazard under GHS criteria. |
| Precautionary statements | : Prevention: No precautionary phrases. Response: No precautionary phrases. Storage: |

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No precautionary phrases. **Disposal:** No precautionary phrases.

Other hazards which do not result in classification

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

| Substance / Mixture : | Mixture |
|-----------------------|--|
| Substance name : | Shell Hydraulic S1 M 46 |
| | Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO- extract, according to IP346. Classification based on DMSO extract content < 3% (Regula- tion (EC) 1272/2008, Annex VI, Part 3, Note L). * contains one or more of the following CAS-numbers: 64742- 53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69- 9, 68649-12-7, 151006-60-9, 163149-28-8, 64741-88-4, 64741-89-5. |

Hazardous components

| Chemical name | CAS-No. | Concentration (% w/w) |
|--|--------------|-----------------------|
| Interchangeable low viscosity base oil (<20,5 cSt @40°C) * | Not Assigned | 0 - 90 |
| 2,6-di-tert-butyl phenol | 128-39-2 | 0 - 0.24 |

SECTION 4. FIRST-AID MEASURES

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|-------------------------|--|
| | 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. Obtain medical attention even in the absence of apparent |
| In case of skin contact | Remove contaminated clothing. Flush exposed area with wa- ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention. |
| If inhaled | : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice. |
| | |

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| | | wounds. | | | | | |
| In case of eye contact | | Remove con rinsing. | Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention. | | | | |
| lf swa | llowed | : In general no | In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. | | | | |
| Most important symptoms and effects, both acute and delayed | | of black pust Ingestion ma Local necros | Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea. Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection. | | | | |
| Protection of first-aiders | | appropriate p | When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings. | | | | |
| Notes | s to physician | : Treat sympto | pmatically. | | | | |
| | | vention and j age and loss Because ent ousness of th determine th anaesthetics can contribut surgical deco eign materia | re injection injuries require prompt surgical inter- possibly steroid therapy, to minimise tissue dam- of function. Ty wounds are small and do not reflect the seri- ne underlying damage, surgical exploration to e extent of involvement may be necessary. Local or hot soaks should be avoided because they te to swelling, vasospasm and ischaemia. Prompt ompression, debridement and evacuation of for- l should be performed under general anaesthet- e exploration is essential. | | | | |

SECTION 5. FIRE-FIGHTING MEASURES

| Suitable extinguishing media | bam, water spray or fog. Dry cher e, sand or earth may be used for | |
|---|--|--|
| Unsuitable extinguishing media | o not use water in a jet. | |
| Specific hazards during fire- fighting | azardous combustion products m complex mixture of airborne solid ases (smoke). arbon monoxide may be evolved ccurs. nidentified organic and inorganic | and liquid particulates and if incomplete combustion |
| Specific extinguishing meth- ods | se extinguishing measures that a Imstances and the surrounding e | |

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| | Special protective equipment for firefighters | | Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Containe Breathing Apparatus must be worn when approaching a fire a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469). | |
| SECTIO | ON 6. ACCIDENTAL RELE | AS | E MEASURES | |
| tive | rsonal precautions, protec- e equipment and emer- ncy procedures | : | Avoid contact with | n skin and eyes. |
| En | Environmental precautions | | nation. Prevent fro | ontainment to avoid environmental contami- om spreading or entering drains, ditches or nd, earth, or other appropriate barriers. |
| | | | Local authorities s cannot be contain | should be advised if significant spillages ed. |
| | ethods and materials for ntainment and cleaning up | : | Prevent from spre or other containm Reclaim liquid dire Soak up residue v | It. Avoid accidents, clean up immediately. ading by making a barrier with sand, earth ent material. actly or in an absorbent. with an absorbent such as clay, sand or other and dispose of properly. |
| Ad | ditional advice | : | see Section 8 of t | election of personal protective equipment his Safety Data Sheet. lisposal of spilled material see Section 13 of heet. |

SECTION 7. HANDLING AND STORAGE

| General Precautions | Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk as- sessment of local circumstances to help determine appropri- ate controls for safe handling, storage and disposal of this material. |
|-------------------------|---|
| Advice on safe handling | Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning mate- rials in order to prevent fires. |

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|------------------|------------------------------|---|--|--|--|
| Avoid | ance of contact | : Strong oxidisi | ng agents. | | |
| Product Transfer | | | Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation. | | |
| Stora | ge | | | | |
| Other data | | place. | Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers. | | |
| | | Store at ambi | ent temperature. | | |
| Packa | aging material | Suitable material: For containers or container linings, use steel or high density polyethylene. Unsuitable material: PVC. | | | |
| Conta | iner Advice | | containers should not be exposed to high tem- cause of possible risk of distortion. | | |

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parame- ters / Permissible concentration | Basis |
|-------------------|--------------|-------------------------------------|--|----------|
| Oil mist, mineral | Not Assigned | TWA (Mist) | 5 mg/m3 | OSHA Z-1 |
| | | TWA (Inhal- | 5 mg/m3 | ACGIH |
| | | able particu- | - | |
| | | late matter) | | |

Biological occupational exposure limits

No biological limit allocated.

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/

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| http:/ | //www.dguv.de/inhalt/inde | x.jsp | Unfallversicherung (IFA) , Germany IRS), France http://www.inrs.fr/accueil |
| Engi | neering measures | vary depending controls based Appropriate me | tection and types of controls necessary will upon potential exposure conditions. Select on a risk assessment of local circumstances. asures include: ation to control airborne concentrations. |
| | | | is heated, sprayed or mist formed, there is I for airborne concentrations to be generated. |
| | | controls. Educate and tra measures releva product. Ensure appropr equipment used equipment, loca Drain down syst nance. Retain drain dow subsequent rec Always observe washing hands drinking, and/or protective equip | res for safe handling and maintenance of in workers in the hazards and control ant to normal activities associated with this iate selection, testing and maintenance of to control exposure, e.g. personal protective al exhaust ventilation. tem prior to equipment break-in or mainte- which is sealed storage pending disposal or ycle. 9 good personal hygiene measures, such as after handling the material and before eating, smoking. Routinely wash work clothing and oment to remove contaminants. Discard con- ing and footwear that cannot be cleaned. |
| | onal protective equipme | | |
| Resp | viratory protection | conditions of us In accordance w tions should be If engineering continues tions to a level w select respirator cific conditions of Check with resp Where air-filtering priate combinations | vith good industrial hygiene practices, precau- taken to avoid breathing of material. ontrols do not maintain airborne concentra- which is adequate to protect worker health, ry protection equipment suitable for the spe- of use and meeting relevant legislation. biratory protective equipment suppliers. ng respirators are suitable, select an appro- ion of mask and filter. uitable for the combination of organic gases d particles [Type A/Type P boiling point |
| | protection emarks | : Where hand co | ntact with the product may occur the use of |
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| | | 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. For continuous contact we recommend gloves with break-through time of more than 240 minutes with preference for > 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 no 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 depending on the glove make and model. |
| Eye | protection | : If material is handled such that it could be splashed into eyes protective eyewear is recommended. |
| Skin | and body protection | Skin protection is not ordinarily required beyond standard work clothes. It is good practice to wear chemical resistant gloves. |
| Ther | mal hazards | : Not applicable |
| Prote | ective measures | : Personal protective equipment (PPE) should meet recom- mended national standards. Check with PPE suppliers. |
| Envi | ronmental exposure o | ntrols |
| Gene | eral advice | : Take appropriate measures to fulfill the requirements of rele- vant environmental protection legislation. Avoid contamination of the environment by following advice given in Section 6. If necessary, prevent undissolved material from being dis- charged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before |

municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance:Liquid at room temperature.Colour:amberOdour Threshold:Data not availableOdour Threshold:Data not availablepH:Not applicablepour point::15 °C / 5 °FMethod: ISO 3016Method: ISO 2016Metting / freezing pointData not availableInitial boiling point and boiling:> 280 °C / 446 °Frange::230 °C / 446 °Fmethod: ISO 2592Evaporation rate:Evaporation rate:Data not availableFlammability Flammability (liquids):Not applicableFlammability (luquids):Not applicableFlammability (liquids):Not classified as flammability limit Upper explosion limit and upper explosion limit / flammability limit Upper explosion limit:Vapour pressure:<0.5 Pa (20 °C / 68 °F) estimated value(s)Relative density:> 5Relative density:> 5Relative density::Solubility(ics) Water solubility:inegligibleSolubility in other solvents:Data not availableParition coefficient: n- catanoi/water:!Auto-ignition temperature:> 30°C / 68 °F) (based on information on similar products)Auto-ignition temperature:> 30°C / 68 °F) (based on information on similar products) | Ver: 1.10 | | Revision Date: 2023-12-29 | | S Number: 001006774 | Print Date: 2024-08-01 Date of last issue: 28.12.2023 Date of first issue: 03.03.2011 |
|--|--------------|--------------------|------------------------------|-------|------------------------|---|
| Odour::Data not availableOdour Threshold::Data not availablepH::Not applicablepour point:::Metting / freezing point::Data not availableInitial boiling point and boiling range:::Initial boiling point and boiling range:::Pash point::::Pash point::::Upper explosion | | Appear | ance | : | Liquid at room te | mperature. |
| Odour Threshold:Data not availablepH:Not applicablepour point::Putting / freezing point::Mething / freezing pointData not availableInitial boiling point and boiling range::Putting / freezing point::Putting / freezing point::Initial boiling point and boiling range::Putting / freezing point::Putting / freezing point infinit::Putting | | Colour | | : | amber | |
| pH:Not applicablepour point::15 °C / 5 °F Method: ISO 3016Metting / freezing pointData not availableInitial boiling point and boiling range::280 °C / 536 °F estimated value(s)Flash point:::280 °C / 446 °F | | Odour | | : | Data not availabl | e |
| pour point: 15 °C / 5 °F Method: ISO 3016Melting / freezing pointData not availableInitial boiling point and boiling: > 280 °C / 536 °F estimated value(s)Flash point: 230 °C / 446 °F Method: ISO 2592Evaporation rate: Data not availableFlammability Flammability (solid, gas): Not applicableFlammability Flammability (solid, gas): Not applicableFlammability Flammability (solid, gas): Not classified as flammable but will burn.Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit: Typical 10 %(V)Lower explosion limit: Typical 10 %(V)Vapour pressure: < 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density: > 5Relative density: 0.873 (15 °C / 59 °F)Density: ReligibleSolubility (ies) Water solubility: negligibleSolubility in other solvents: Data not availablePartition coefficient: n- octanol/water: log Pow: > 6 (based on information on similar products)Auto-ignition temperature: > 320 °C / 608 °F | | Odour ⁻ | Threshold | : | Data not availabl | e |
| Method: ISO 3016Mething / freezing pointData not availableInitial boiling point and boiling range:> 280 °C / 536 °F estimated value(s)Flash point:230 °C / 446 °F Method: ISO 2592Evaporation rate:Data not availableFlammability Flammability (liquids):Not applicableFlammability (liquids):Not classified as flammability limit Upper explosion limit and upper explosion limit / flammability limit Upper explosion limit:Lower explosion limit:Typical 10 %(V)Lower explosion limit::Lower explosion limit::Vapour pressure::Relative density::Density::Solubility(ries) Water solubility::Solubility in other solvents::Density::Solubility in other solvents::Data not available:Partition coefficient: n- octanol/water::Auto-ignition temperature::200 °C / 660 °F:: | | рН | | : | Not applicable | |
| Initial boiling point and boiling is >280 °C / 536 °F range is imated value(s) Flash point : 230 °C / 446 °F Method: ISO 2592 Evaporation rate : Data not available Flammability Flammability (solid, gas) : Not applicable Flammability (liquids) : Not classified as flammable but will burn. Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit is Typical 10 %(V) Lower explosion limit is Typical 10 %(V) Vapour pressure : Typical 10 %(V) Vapour pressure : 0.873 (15 °C / 68 °F) estimated value(s) Relative vapour density : > 5 Relative density : 0.873 (15 °C / 59 °F) Density : 0.873 (15.0 °C / 59.0 °F)Method: ISO 12185 Solubility(ies) Water solubility in other solvents : Data not available Partition coefficient: n- octanol/water : > 320 °C / 608 °F | | pour po | bint | : | | 6 |
| rangestimated value(s)Flash point:230 °C / 446 °FHethod: ISO 2592Evaporation rate:Data not availableFlammability Flammability (solid, gas):Not applicableFlammability (liquids):Not classified as flammable but will burn.Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit:Typical 10 %(V)Lower explosion limit:Typical 1%(V)Vapour pressure::Relative vapour density::> 5Relative density::0.873 (15 °C / 59 °F)Density::negligibleSolubility(ies) Water solubility::Data not availablePartition coefficient: n- octanol/water::Data not availablePartition coefficient: n- octanol/water::> 320 °C / 608 °FAuto-ignition temperature::> 320 °C / 608 °F | | Melting | / freezing point | | Data not availabl | e |
| Kethod:ISO 2592Evaporation rate:Data not availableFlammabilityflammability (solid, gas):Not applicableFlammability (liquids):Not classified as flammabile but will burn.Lower explosion limit and upper explosion limit:Typical 10 %(V)Lower explosion limit:Typical 10 %(V)Lower explosion limit:1 ypical 10 %(V)Vapour pressure:< 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density:> 5Relative density:< 873 (15 °C / 59 °F) | | | oiling point and boiling | : | | |
| Evaporation rate:Data not availableFlammability Flammability (solid, gas):Not applicableFlammability (liquids):Not classified as flammable but will burn.Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit:Typical 10 %(V)Lower explosion limit:Typical 10 %(V)Vapour pressure:::Relative vapour density:::Density:::Solubility(iss) Water solubility:::Solubility in other solvents:::Partition coefficient: n- octanol/water:::Auto-ignition temperature:::Auto-ignition temperature:::< | | Flash p | oint | : | 230 °C / 446 °F | |
| Flammability Flammability (solid, gas): Not applicableFlammability (liquids): Not classified as flammable but will burn.Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit: Typical 10 %(V)Lower explosion limit: Typical 1 %(V)Vapour pressure: < 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density: < > 5Relative density: < 0.873 (15 °C / 59 °F) | | | | | Method: ISO 259 | 2 |
| Flammability (solid, gas):Not applicableFlammability (liquids):Not classified as flammable but will burn.Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit:Typical 10 %(V)Lower explosion limit:Typical 1 %(V)Vapour pressure:< 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density:> 5Relative density:> 5Density:873 kg/m3 (15.0 °C / 59.0 °F)Density:873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185Solubility(ies) Water solubility:negligibleSolubility in other solvents:Data not availablePartition coefficient: n- octanol/water:log Pow: > 6 (based on information on similar products)Auto-ignition temperature:> 320 °C / 608 °F | | Evapor | ation rate | : | Data not availabl | e |
| Lower explosion limit and upper explosion limit / flammability limit Upper explosion limit : Typical 10 %(V) Lower explosion limit : Typical 1 %(V) Vapour pressure : < 0.5 Pa (20 °C / 68 °F) estimated value(s) Relative vapour density : > 5 Relative density : > 5 Relative density : 0.873 (15 °C / 59 °F) Density : 873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185 Solubility(ies) Water solubility : negligible Solubility in other solvents : Data not available Partition coefficient: n- octanol/water : > 320 °C / 608 °F | | | | : | Not applicable | |
| Upper explosion limit: Typical 10 %(V)Lower explosion limit: Typical 1 %(V)Vapour pressure: < 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density: < > 5Relative density: < 0.873 (15 °C / 59 °F) | | Flan | nmability (liquids) | : | Not classified as | flammable but will burn. |
| Lower explosion limit:Typical 1 %(V)Vapour pressure:< 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density:> 5Relative density:0.873 (15 °C / 59 °F)Density:873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185Solubility(ies) Water solubility:negligibleSolubility in other solvents:Data not availablePartition coefficient: n- octanol/water:log Pow: > 6 (based on information on similar products)Auto-ignition temperature:> 320 °C / 608 °F | | Lower e | explosion limit and upp | er e> | plosion limit / flam | mability limit |
| Vapour pressure:< 0.5 Pa (20 °C / 68 °F) estimated value(s)Relative vapour density:> 5Relative density:0.873 (15 °C / 59 °F)Density:873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185Solubility(ies) Water solubility:negligibleSolubility in other solvents:Data not availablePartition coefficient: n- octanol/water:log Pow: > 6 (based on information on similar products)Auto-ignition temperature:> 320 °C / 608 °F | | Upp | er explosion limit | : | Typical 10 %(V) | |
| Relative vapour density:> 5Relative density:0.873 (15 °C / 59 °F)Density:873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185Solubility(ies):negligibleVater solubility:Data not availablePartition coefficient: n- octanol/water:log Pow: > 6 (based on information on similar products)Auto-ignition temperature:> 320 °C / 608 °F | | Low | er explosion limit | : | Typical 1 %(V) | |
| Relative density:0.873 (15 °C / 59 °F)Density:873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185Solubility(ies) Water solubility:negligibleSolubility in other solvents:Data not availablePartition coefficient: n- octanol/water:log Pow: > 6 (based on information on similar products)Auto-ignition temperature:> 320 °C / 608 °F | | Vapour | pressure | : | | |
| Density:873 kg/m3 (15.0 °C / 59.0 °F)Method: ISO 12185Solubility(ies) Water solubility:negligibleSolubility in other solvents:Data not availablePartition coefficient: n- octanol/water:log Pow: > 6 (based on information on similar products)Auto-ignition temperature:> 320 °C / 608 °F | | Relative | e vapour density | : | > 5 | |
| Solubility(ies) : negligible Water solubility : Data not available Solubility in other solvents : Data not available Partition coefficient: n- octanol/water : log Pow: > 6 (based on information on similar products) Auto-ignition temperature : > 320 °C / 608 °F | | Relative | e density | : | 0.873 (15 °C / 59 | °F) |
| Water solubility : negligible Solubility in other solvents : Data not available Partition coefficient: n- octanol/water : log Pow: > 6 (based on information on similar products) Auto-ignition temperature : > 320 °C / 608 °F | | Density | , | : | 873 kg/m3 (15.0 | °C / 59.0 °F)Method: ISO 12185 |
| Partition coefficient: n- octanol/water: log Pow: > 6 (based on information on similar products)Auto-ignition temperature: > 320 °C / 608 °F | | | | : | negligible | |
| octanol/water(based on information on similar products)Auto-ignition temperature: > 320 °C / 608 °F | | Solu | bility in other solvents | : | Data not availabl | e |
| | | | | : | | ation on similar products) |
| | | | nition temperature | : | > 320 °C / 608 °F | |

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| | | | | |
| Decomposition temperature | | : Data not available | | |
| Viscosity Viscosity, dynamic | | : Data not available | | |
| Viscosity, kinematic | | : 46 mm2/s (40.0 °C / 104.0 °F) Method: ISO 3104 | | |
| | | 6.7 mm2/s (100 °C / 212 °F) Method: ISO 3104 | | |
| Explosive properties : Classif | | : Classification | Code: Not classified | |
| Oxidiz | zing properties | : Data not available | | |
| Cond | uctivity | : This material is not expected to be a static accumulator. | | |

SECTION 10. STABILITY AND REACTIVITY

| Reactivity | : The product does not pose any further reactivity hazards addition to those listed in the following sub-paragraph. | in |
|---|---|----|
| Chemical stability | : Stable. | |
| Possibility of hazardous reac- tions | : Reacts with strong oxidising agents. | |
| Conditions to avoid | : Extremes of temperature and direct sunlight. | |
| Incompatible materials | : Strong oxidising agents. | |
| Hazardous decomposition products | : No decomposition if stored and applied as directed. | |

SECTION 11. TOXICOLOGICAL INFORMATION

| Basis for assessment | : | Information given is based on data on the components and |
|----------------------|---|--|
| | | the toxicology of similar products.Unless indicated otherwise, |
| | | the data presented is representative of the product as a |
| | | whole, rather than for individual component(s). |

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

Product:

Acute oral toxicity

: LD50 (rat): > 5,000 mg/kg

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| | | Remarks: Low Based on avail | toxicity able data, the classification criteria are not met. | |
| Acute | inhalation toxicity | : Remarks: Based on available data, the classification criteria are not met. | | |
| Acute dermal toxicity | | Remarks: Low | : LD50 (Rabbit): > 5,000 mg/kg Remarks: Low toxicity Based on available data, the classification criteria are not met. | |

Skin corrosion/irritation

Product:

Remarks: Slightly irritating to skin. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Remarks: Slightly irritating to the eye. Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

Remarks: Not a skin sensitiser. Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

 Remarks: Non mutagenic Based on available data, the classification criteria are not met.

Carcinogenicity

Genotoxicity in vivo

Product:

Remarks: Not a carcinogen. Based on available data, the classification criteria are not met.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skinpainting studies.

Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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|---------------------|--------------------------------|-----------------------------|---|--|--|
| OSH | A | | his product present at levels greater than or n OSHA's list of regulated carcinogens. | | |
| NTP | | | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. | | |
| Repr | oductive toxicity | | | | |
| Prod Effec | <u>uct:</u> ts on fertility | Does not impair | a developmental toxicant. r fertility. able data, the classification criteria are not met. | | |
| STO | Γ - single exposure | | | | |
| <u>Prod</u> Rema | | le data, the classificati | on criteria are not met. | | |

STOT - repeated exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Not 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.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment

: Ecotoxicological data have not been determined specifically for this product.

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| | | and the eco Unless indic | given is based on a knowledge of the components toxicology of similar products. ated otherwise, the data presented is representa- roduct as a whole, rather than for individual com- |
| Ecot | oxicity | | |
| Prod | uct: | | |
| Toxic ty) | sity to fish (Acute toxici- | : Remarks: B are not met. Practically n LL/EL/IL50 : | on toxic: |
| Toxic toxici | sity to crustacean (Acute ty) | : Remarks: B are not met. Practically n LL/EL/IL50 : | on toxic: |
| | sity to algae/aquatic s (Acute toxicity) | : Remarks: B are not met. Practically n LL/EL/IL50 : | on toxic: |
| Toxic icity) | to fish (Chronic tox- | : Remarks: B are not met. | ased on available data, the classification criteria |
| | sity to crustacean onic toxicity) | : Remarks: B are not met. | ased on available data, the classification criteria |
| | te to microorganisms te toxicity) | : Remarks: B are not met. | ased on available data, the classification criteria |
| 2,6-d | ponents: li-tert-butyl phenol: lotor (Acute aquatic tox- | : 1 | |
| Pers | istence and degradabil | ity | |
| Prod | uct: | | |
| Biode | egradability | Major const components Persistent p Internationa tion: "A non- | ot readily biodegradable. ituents are inherently biodegradable, but contains that may persist in the environment. er IMO criteria. I Oil Pollution Compensation (IOPC) Fund defini- persistent oil is oil, which, at the time of shipment, hydrocarbon fractions, (a) at least 50% of which, |
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| | | at least 98 370°C (70 | e, distills at a temperature of 340°C (645°F) and (b) 5% of which, by volume, distils at a temperature of 10°F) when tested by the ASTM Method D-86/78 or equent revision thereof." |
| Bioad | cumulative potential | | |
| Prod | uct: | | |
| | cumulation | : Remarks: cumulate. | Contains components with the potential to bioac- |
| | ion coefficient: n- ol/water | : log Pow: > 6 Remarks: (based on information on similar products) | |
| Mobi | lity in soil | | |
| Produ | uct: | | |
| Mobil | ity | | Liquid under most environmental conditions. soil, it will adsorb to soil particles and will not be |
| | | Remarks: | Floats on water. |
| Othe | adverse effects | | |
| Produ | uct: | | |
| Additi matio | onal ecological infor- n | ozone cre Product is | have ozone depletion potential, photochemical ation potential or global warming potential. a mixture of non-volatile components, which will not ed to air in any significant quantities under normal s of use. |
| | | | uble mixture. hysical fouling of aquatic organisms. |
| | | | l does not cause chronic toxicity to aquatic organ- oncentrations less than 1 mg/l. |

SECTION 13. DISPOSAL CONSIDERATIONS

| Disposal methods | |
|---------------------|---|
| Waste from residues | Recover or recycle if possible. 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. Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Do not dispose into the environment, in drains or in water |

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|---|------------------------------|---|---|--|
| drain into the gr contamination. Waste arising fr posed of in acc to a recognised | | Do not dispose of drain into the gro contamination. Waste arising fro posed of in acco to a recognised | of tank water bottoms by allowing them to bund. This will result in soil and groundwater om a spillage or tank cleaning should be dis- ordance with prevailing regulations, preferably collector or contractor. The competence of the ractor should be established beforehand. | |
| | | MARPOL - see International Convention for the Prevention o Pollution from Ships (MARPOL 73/78) which provides tech- nical aspects at controlling pollutions from ships. | | |
| Contaminated packaging | | : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations. | | |
| Local Rema | legislation rks | | be in accordance with applicable regional, al laws and regulations. | |

SECTION 14. TRANSPORT INFORMATION

National Regulations

TDG

Not regulated as a dangerous good

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

Special precautions for user

Remarks

: Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

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SECTION 15. REGULATORY INFORMATION

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

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The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

The components of this product are reported in the following inventories:

| TSCA | : All components listed. |
|------|--------------------------|
| | |

DSL

: All components listed.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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| | | | |

A vertical bar (|) in the left margin indicates an amendment from the previous version. Sources of key data used to compile the Safety Data Sheet : The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

Revision Date : 2023-12-29

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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