| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 | | | |
|---|---|---|--|--|--|
| 1. PRODUCT AND COMPANY IDENTIFICATION | | | | | |
| Chemical product name | : AeroShell Calibrating Fluid 2 | (US) | | | |
| Product code | : 001E6020 | | | | |
| Manufacturer or supplier's | details | | | | |
| Supplier's company name, address and phone number | : Shell Lubricants Japan K.K. Pacific Century Place Maruno 1-11-1, Marunouchi Chiyoda-ku Tokyo 100-6212 Japan | ouchi 12F | | | |
| Telephone Telefax | : (+81) 03-3218-1780 : (+81) 03-3218-1781 | | | | |
| Emergency telephone number | [Important notice for custome If you need support for produce service centre. Lub Customer Service Centre Tel. 0120-064-315 / Fax. 012 E-mail. Inquiries-Lubes-JP@ (Available for Japanese office) | e (Lub CSC) 20-264-315 (JP Toll free) shell.com | | | |
| Contact for Safety Data Sheet | : If you have any enquiries a please email lubricantSDS@ | bout the content of this SDS Ishell.com | | | |
| Recommended use of the c | hemical and restrictions on use | | | | |
| Recommended use | : Special kerosine for aircraft for | uel system calibration. | | | |
| | For further details consult the www.shell.com/aviation. | e AeroShell Book on | | | |
| Restrictions on use | : This substance may not be us recommended without expert | sed for any purpose other than advice | | | |

2. HAZARDS IDENTIFICATION

| GHS classification of chemical product | | | |
|--|---|--|--|
| Flammable liquids | : Category 3 | | |
| Aspiration hazard | : Category 1 | | |
| Skin irritation | : Category 2 | | |
| Specific target organ toxicity - single exposure | : Category 3 (Narcotic effects) | | |
| Specific target organ toxicity - repeated exposure | : Category 1 (Central nervous system (CNS)) | | |

| sion 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.0 |
|---|---|---|
| (Inhalation) Long-term (chronic) aquatic hazard | : Category 2 | |
| GHS label elements | | |
| Hazard pictograms | | |
| Signal word | : Danger | × |
| Hazard statements | PHYSICAL HAZARDS: H226 Flammable liquid and vapor HEALTH HAZARDS: H304 May be fatal if swallowed at H315 Causes skin irritation. H336 May cause drowsiness or d H372 Causes damage to the cent prolonged or repeated exposure. ENVIRONMENTAL HAZARDS: H411 Toxic to aquatic life with lor | nd enters airways. lizziness. tral nervous system througł |
| Precautionary statements | : Prevention: P210 Keep away from heat, hot s and other ignition sources. No sm P260 Do not breathe dust/ fume/ P273 Avoid release to the enviror P280 Wear protective gloves/ pro protection/ face protection. | noking. gas/ mist/ vapours/ spray. nment. |
| | Response: P301 + P310 IF SWALLOWED: In CENTER/doctor. P331 Do NOT induce vomiting. | mmediately call a POISON |
| | Storage: No precautionary phrases. | |
| | Disposal: P501 Dispose of contents/ contain disposal plant. | ner to an approved waste |

Hazardous components which must be listed on the label: Contains distillates (petroleum), hydrotreated light. Contains Solvent naphtha (petroleum), medium aliphatic.

Other hazards which do not result in classification

Version 1.2Revision Date 2024.07.16Print Date 2024.11.04Used oil may contain harmful impurities.High-pressure injection under the skin may cause serious
damage including local necrosis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Blend of kerosine and additives.

Hazardous components

| Substance name | CAS-No. | CAS-No. Classification Concentrat w/w) | |
|--|------------|--|---------|
| Solvent naphtha, petroleum, medium aliphatic | 64742-88-7 | Flam. Liq.3; H226 Asp. Tox.1; H304 Skin Irrit.3; H316 STOT SE3; H336 STOT RE1; H372 Aquatic Chronic2; H411 | 45 - 55 |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Flam. Liq.3; H226 Asp. Tox.1; H304 Skin Irrit.2; H315 STOT SE3; H336 Aquatic Chronic2; H411 | 45 - 55 |
| Nonane | 111-84-2 | Flam. Liq.3; H226 Skin Irrit.2; H315 Asp. Tox.1; H304 STOT SE3; H336 Aquatic Acute1; H400 Aquatic Chronic1; H410 | 1 - 5 |

For explanation of abbreviations see section 16.

| FIRST-AID MEASURES | |
|-------------------------|---|
| If inhaled | : Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. |
| In case of skin contact | : Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical |

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|---|---|---|
| | facility for additional treatmen | t. |
| | | igh pressure injuries occur, the ediately to a hospital. Do not wait |
| In case of eye contact | : Flush eye with copious quanti Remove contact lenses, if pre rinsing. If persistent irritation occurs, o | esent and easy to do. Continue |
| If swallowed | If any of the following delayed within the next 6 hours, transp facility: fever greater than 101 | omiting: transport to nearest treatment. If vomiting occurs show hips to prevent aspiration. I signs and symptoms appear port to the nearest medical |
| Most important symptoms and effects, both acute and delayed | | , difficulty in breathing, chest ath, and/or fever. botoms may be delayed for toms may include a burning and/or blisters. centrations may cause central ssion resulting in dizziness, light- sea and loss of coordination. ult in unconsciousness and d symptoms may include a ied/cracked appearance. a, vomiting and/or diarrhoea. |
| Protection of first-aiders | | ensure that you are wearing the /e equipment according to the ngs. |
| Notes to physician | Treat symptomatically. Call a doctor or poison contro High pressure injection injurie intervention and possibly ster- damage and loss of function. | - |
| | Because entry wounds are sn | nall and do not reflect the |

| Version 1.2 | Revision Date 2024.07.16 seriousness of the underlying dama determine the extent of involvemen anaesthetics or hot soaks should be can contribute to swelling, vasospa surgical decompression, debrideme foreign material should be performe anaesthetics, and wide exploration | t may be necessary. Local e avoided because they sm and ischaemia. Prompt ent and evacuation of ed under general |
|---|--|--|
| 5. FIRE-FIGHTING MEASURES | | |
| Suitable extinguishing media | : Foam, water spray or fog. Dry chen dioxide, sand or earth may be used | |
| Unsuitable extinguishing media | : Do not use water in a jet. | |
| Specific hazards during firefighting | Will float and can be reignited on su Hazardous combustion products ma A complex mixture of airborne solid gases (smoke). Carbon monoxide may be evolved i occurs. Unidentified organic and inorganic of | ay include: and liquid particulates and if incomplete combustion |
| Specific extinguishing methods Special protective equipment for firefighters | Keep adjacent containers cool by s Proper protective equipment includi must be worn when approaching a | ing breathing apparatus |

6. ACCIDENTAL RELEASE MEASURES

| Environmental precautions : Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate | Personal precautions, protective equipment and emergency procedures | : | Avoid contact with skin and eyes. |
|--|---|---|--|
| equipment. Local authorities should be advised if significant spillages cannot be contained. | | : | possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Local authorities should be advised if significant spillages |
| Methods and materials for : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth | | : | Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth |

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|---------------------------------|--|--|
| | or other containment material. Reclaim liquid directly or in an Soak up residue with an absord suitable material and dispose o | pent such as clay, sand or other |
| Additional advice | : For guidance on selection of persee Section 8 of this Safety Da For guidance on disposal of sp this Safety Data Sheet. | |
| | Local authorities should be adv cannot be contained. | rised if significant spillages |
| 7. HANDLING AND STORAGE | | |
| Handling | | |
| Technical measures | : Use local exhaust ventilation if vapours, mists or aerosols. Use the information in this data assessment of local circumstar appropriate controls for safe ha this material. | a sheet as input to a risk |
| Advice on safe handling | : Extinguish any naked flames. I sources. Avoid sparks. Avoid prolonged or repeated co Avoid inhaling vapour and/or m Use only in well-ventilated area When handling product in drum worn and proper handling equip Properly dispose of any contan materials in order to prevent fir | ontact with skin. hists. as. hs, safety footwear should be pment should be used. hinated rags or cleaning |
| Facial protective equipment | : If material is handled such that protective eyewear is recomme | |
| | Wear goggles for use against li | iquids and gas. |
| | Wear full face shield if splashe | s are likely to occur. |
| Describe contact avoidance, etc | : Strong oxidising agents. | |
| Product Transfer | : Wait 2 minutes after tank filling road tanker vehicles) before op Wait 30 minutes after tank fillin before opening hatches or mar grounding and bonding, this ma electrostatic charge. If sufficient accumulate, electrostatic disch air-vapour mixtures can occur. operations that may give rise to | bening hatches or manholes. g (for large storage tanks) holes. Even with proper aterial can still accumulate an t charge is allowed to arge and ignition of flammable Be aware of handling |

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--------------------|---|---|
| | from the accumulation of static ch not limited to pumping (especially filtering, splash filling, cleaning an containers, sampling, switch load operations, and mechanical move lead to static discharge e.g. spark velocity during pumping in order t electrostatic discharge (≤ 1 m/s u twice its diameter, then ≤ 7 m/s). use compressed air for filling, disc operations. | turbulent flow), mixing, ad filling of tanks and ing, gauging, vacuum truck ements. These activities may a formation. Restrict line o avoid generation of ntil fill pipe submerged to Avoid splash filling. Do NOT |
| Storage | | |
| Other data | Must be stored in a diked (bunded from sunlight, ignition sources and Use properly labeled and closable Keep container tightly closed and place. Store at ambient temperature. | d other sources of heat. |
| Packaging material | : Suitable material: For containers steel or high density polyethylene | |
| Container Advice | : Polyethylene containers should no temperatures because of possible | |
| Specific use(s) | : See additional references that pro American Petroleum Institute 200 Ignitions Arising out of Static, Ligh National Fire Protection Agency 7 on Static Electricity). | 3 (Protection Against ntning and Stray Currents) or |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|----------------|-------------------------------------|---|----------------|
| Solvent naphtha, petroleum, medium aliphatic | 64742-88-7 | TWA | 200 mg/m3 | ACGIH |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | OEL-M (Mist) | 3 mg/m3 | JP OEL JSOH |
| | Further inform | ation: Group 1: c | arcinogenic to huma | ns |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | TWA | 200 mg/m3 | ACGIH |
| Distillates (petroleum), hydrotreated light | | TWA (Mist) | 5 mg/m3 | NIOSH REL |
| Distillates (petroleum), | | ST (Mist) | 10 mg/m3 | NIOSH REL |

| Version 1.2 | Revision Date 2024.07.16 | | Print Date 2024.11.04 | | |
|--------------------------|--------------------------|------------|-----------------------|-----------|--|
| hydrotreated light | | | | | |
| Distillates (petroleum), | | TWA (Mist) | 5 mg/m3 | OSHA Z-1 | |
| hydrotreated light | | | | | |
| Nonane | 111-84-2 | OEL-M | 200 ppm | JP OEL | |
| | | | 1,050 mg/m3 | JSOH | |
| Nonane | 111-84-2 | TWA | 200 ppm | ACGIH | |
| Nonane | | TWA | 200 ppm | NIOSH REL | |
| | | | 1,050 mg/m3 | | |

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/

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

労働者の健康障害を防止するため化学物質の濃度基準値とその適用方法などを定めました (mhlw.go.jp)

| 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. |
| | 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 |

| rsion 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--|---|---|
| | product. Ensure appropriate selection, testin equipment used to control exposur equipment, local exhaust ventilatio Drain down system prior to equipm maintenance. Retain drain downs in sealed stora subsequent recycle. Always observe good personal hyg washing hands after handling the r drinking, and/or smoking. Routine protective equipment to remove co contaminated clothing and footwea Practice good housekeeping. Adequate explosion-proof ventilatio concentrations below the exposure | re, e.g. personal protective on. ment break-in or age pending disposal or giene measures, such as material and before eating, ly wash work clothing and ontaminants. Discard ar that cannot be cleaned. on to control airborne e guidelines/limits. |
| | Firewater monitors and deluge sys | stems are recommended. |
| | Consider technical advances and p automation) for the elimination of r using measures such as closed sy and suitable general/local exhaust systems and clear transfer lines pr Clean/flush equipment, where post Where there is potential for expost authorised persons; provide specif operators to minimise exposures; y coveralls to prevent skin contamina protection when there is potential f immediately and dispose of wastes systems of work or equivalent arra manage risks. Regularly inspect, te measures. Consider the need for r surveillance. | eleases. Minimise exposure rstems, dedicated facilities ventilation. Drain down for to breaking containment. sible, prior to maintenance. ure: restrict access to fic activity training to wear suitable gloves and ation; wear respiratory for inhalation; clear up spills s safely.Ensure safe ingements are in place to est and maintain all control |
| Personal protective equipment | | |
| Protective measures | | |
| Personal protective equipment (P PPE suppliers. | PE) should meet recommended nat | tional standards. Check with |

| Respiratory protection | No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. |
|------------------------|---|
| | specific conditions of use and meeting relevant legislation. |

| sion 1.2 | Revision Date 2024.07.16 | Print Date 2024.1 |
|--------------------------|--|---|
| | Check with respiratory protective Where air-filtering respirators are appropriate combination of mask Select a filter suitable for the com and vapours and particles [Type 7 (149°F)]. | suitable, select an and filter. bination of organic gases |
| Hand protection | | |
| Remarks | : Where hand contact with the proc gloves approved to relevant stand US: F739) made from the followir suitable chemical protection. PVC gloves Suitability and durability of usage, e.g. frequency and duration resistance of glove material, dext from glove suppliers. Contaminat replaced. Personal hygiene is a k care. Gloves must only be worn of gloves, hands should be washed Application of a non-perfumed model. | dards (e.g. Europe: EN37 ng materials may provide C, neoprene or nitrile rubb f a glove is dependent on on of contact, chemical erity. Always seek advice ed gloves should be ey element of effective has on clean hands. After usin and dried thoroughly. |
| | For continuous contact we recombreakthrough time of more than 2 for > 480 minutes where suitable short-term/splash protection we recognize that suitable gloves offi- may not be available and in this of time maybe acceptable so long a and replacement regimes are follor a good predictor of glove resistand dependent on the exact composition Glove thickness should be typical depending on the glove make and | 40 minutes with preferen gloves can be identified. ecommend the same but ering this level of protecti- case a lower breakthrough s appropriate maintenance owed. Glove thickness is ice to a chemical as it is ion of the glove material. Ily greater than 0.35 mm |
| Eye and face protection | : If material is handled such that it protective eyewear is recommend | |
| Eye and face protection | Wear goggles for use against liqu | iids and gas. |
| Eye and face protection | Wear full face shield if splashes a | are likely to occur. |
| Skin and body protection | : Wear chemical resistant gloves/g risk of splashing, also wear an ap | |
| | | |

Environmental exposure controls

| Take appropriate measures to fulfill the requirements of |
|---|
| relevant environmental protection legislation. Avoid |
| contamination of the environment by following advice given in |
| Section 6. If necessary, prevent undissolved material from |
| : |

| Version 1.2 | Revision Date 2024.07.16 Print Date 2024.11.04 being discharged to waste water. Waste water should be |
|--|--|
| | treated in a 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. |
| 9. PHYSICAL AND CHEMICAL P | ROPERTIES |
| Physical state | : Liquid at room temperature. |
| Colour | : colourless |
| Odour | : Slight hydrocarbon |
| Odour Threshold | : Data not available |
| рН | : Not applicable |
| pour point | : Method: Unspecified Not applicable |
| Melting / freezing point | Data not available |
| Boiling point, initial boiling point and boiling range | : Data not available |
| Flash point | : 43 °C / 109 °F Method: ASTM D93 (PMCC) |
| Evaporation rate | : Data not available |
| Flammability | |
| Flammability (solid, gas) | : Not applicable |
| Flammability (liquids) | : Flammable liquid and vapour. |
| Lower explosion limit and up | per explosion limit / flammability limit |
| Upper explosion limit | : Data not available |
| Lower explosion limit | : Data not available |
| Vapour pressure | : Data not availableData not available |
| Relative vapour density | : Data not available |
| Density and / or relative dens | ity |
| Relative density | : 0.770 (15 °C / 59 °F) |
| Density | : 770 kg/m3 (15.0 °C / 59.0 °F) Method: ASTM D4052 |
| Solubility(ies) | |

Solubility(ies)

SAFETY DATA SHEET

AeroShell Calibrating Fluid 2 (US)

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--|--|-----------------------|
| Water solubility | : negligible | |
| Solubility in other solvents | : Data not available | |
| Partition coefficient: n- octanol/water | : log Pow: > 3 | |
| Auto-ignition point | : Data not available | |
| Decomposition temperature | : Data not available | |
| Viscosity | | |
| Viscosity (Dynamic) | : Data not available | |
| Viscosity, kinematic | : 0.95 mm2/s (40.0 °C / 104.0 °F) Method: ASTM D445 | |
| Particle characteristics Particle size | : Data not available | |
| | | |
| Explosive properties | : Classification Code: Not classified | |
| Oxidizing properties | : Data not available | |
| Conductivity | : This material is not expected to be a st | tatic accumulator. |

10. STABILITY AND REACTIVITY

| Chemical stability | : Stable. |
|------------------------------------|---|
| Possibility of hazardous reactions | : Reacts with strong oxidising agents. |
| Conditions to avoid | : Avoid heat, sparks, open flames and other ignition sources. |
| Incompatible materials | : Strong oxidising agents. |
| Hazardous decomposition products | : No decomposition if stored and applied as directed. |

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). |
|----------------------|---|---|
| | | |

| Version 1.2 | | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--|---|--|---------------------------|
| Information on likely routes of exposure | : | Skin and eye contact are the primary ro although exposure may occur following | • |
| Acute toxicity | | | |
| Product: | | | |
| Acute oral toxicity | : | LD50 rat: > 5,000 mg/kg Remarks: Low toxicity Based on available data, the classificat | ion criteria are not met. |
| | | Remarks: Aspiration into the lungs may pneumonitis which can be fatal. | cause chemical |
| Acute inhalation toxicity | : | LC 50 Rat: > 1 - < 5 mg/l Exposure time: 4 h Remarks: Harmful if inhaled. | |
| Acute dermal toxicity | : | LD 50 Rabbit: > 2,000 - < 5,000 mg/kg Remarks: May be harmful in contact wi | th skin. |

Skin corrosion/irritation

Product:

Remarks: Causes skin irritation.

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

Product:

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

| | Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--|-------------|--------------------------|-----------------------|
|--|-------------|--------------------------|-----------------------|

| Material | GHS/CLP Carcinogenicity Classification |
|--|--|
| Solvent naphtha, petroleum, medium aliphatic | No carcinogenicity classification. |
| Distillates (petroleum), hydrotreated light | No carcinogenicity classification. |
| Nonane | No carcinogenicity classification. |

| Material | Other Carcinogenicity Classification |
|--|---|
| Solvent naphtha, petroleum, medium aliphatic | IARC: Group 3: Not classifiable as to its carcinogenicity to humans |

Reproductive toxicity

Product:

Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Remarks: Ingestion may cause drowsiness and dizziness.

2

STOT - repeated exposure

Product:

Remarks: Central nervous system: repeated exposure affects the nervous system.

Aspiration toxicity

Product:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

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.

 Version 1.2
 Revision Date 2024.07.16
 Print Date 2024.11.04

 Remarks: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.
 Print Date 2024.11.04

Remarks: Slightly irritating to respiratory system.

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. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). |
|----------------------|---|
|----------------------|---|

Ecotoxicity

| Product: | |
|---|--|
| Toxicity to fish (Acute toxicity) | : Remarks: LL/EL/IL50 > 1 <= 10 mg/l Toxic |
| Toxicity to crustacean (Acute toxicity) | : Remarks: LL/EL/IL50 > 1 <= 10 mg/l Toxic |
| Toxicity to algae/aquatic plants (Acute toxicity) | : Remarks: LL/EL/IL50 > 1 <= 10 mg/l Toxic |
| Toxicity to fish (Chronic toxicity) | : Remarks: Data not available |
| 5, | : Remarks: Data not available |
| | : Remarks: Data not available |
| <u>Components:</u> Nonane : | |
| M-Factor (Short-term (acute) aquatic hazard) | : 1 |
| Persistence and degradability | |
| Product: | |
| Biodegradability | : Remarks: Not readily biodegradable., Major constituents are inherently biodegradable, but contains components that may persist in the environment. |
| Bioaccumulation | |

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--|---|--|
| Product: | | |
| Bioaccumulation | : Remarks: Contains constituents with the potential to bioaccumulate. | |
| Partition coefficient: n- octanol/water | : log Pow: > 3 | |
| Mobility in soil | | |
| Product: | | |
| Mobility | : Remarks: Liquid under most enviror enters soil, it will adsorb to soil parti- mobile. Remarks: Floats on water. | |
| Other adverse effects | | |
| no data available <u>Product:</u> | | |
| Additional ecological information | Does not have ozone depletion pote ozone creation potential or global wa is a mixture of non-volatile compone released to air in any significant qua conditions of use. Poorly soluble mixture., Causes phy organisms. | arming potential., Product ents, which will not be intities under normal |
| Hazardous to the ozone laver | | |

Hazardous to the ozone layer

Not applicable

13. DISPOSAL CONSIDERATIONS

| Disposal methods | |
|----------------------------|--|
| Chemicals (residual waste) | : 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. Do not dispose into the environment, in drains or in water courses. |
| | Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater |

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|---|--|--|
| | contamination. | |
| | Pollution from Ships (MARPOL 73/78) technical aspects at controlling pollutio | which provides |
| Contaminated containers and : packaging | Drain container thoroughly. After draining, vent in a safe place awa Do not puncture, cut, or weld uncleane Dispose in accordance with prevailing to a recognized collector or contractor. the collector or contractor should be es | d drums. regulations, preferably The competence of |
| Local legislation Remarks : | Disposal should be in accordance with national, and local laws and regulations | |

14. TRANSPORT INFORMATION

Regulatory information when there are domestic regulations

Refer to section 15 for specific national regulation.

International Regulations

| ADR | |
|------------------------------|--|
| UN number | : 1268 |
| Product Name (Proper | : PETROLEUM DISTILLATES, N.O.S. |
| shipping name) | |
| Class (Hazard class in | : 3 |
| transportation) | |
| Packing group | : 111 |
| Labels | : 3 |
| Hazard Identification Number | : 30 |
| Environmentally hazardous | : yes |
| IATA-DGR | |
| UN/ID No. | : UN 1268 |
| Product Name (Proper | : Petroleum distillates, n.o.s. |
| shipping name) | |
| Class (Hazard class in | : 3 |
| transportation) | |
| Packing group | : III |
| Labels | : 3 |
| IMDG-Code | |
| UN number | : UN 1268 |
| Product Name (Proper | : PETROLEUM DISTILLATES, N.O.S. |
| shipping name) | |
| | (Solvent naphtha (petroleum), medium aliphatic.) |
| | |

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|--|--------------------------|-----------------------|
| Class (Hazard class in transportation) | : 3 | |
| Packing group | : 111 | |
| Labels | : 3 | |
| Marine pollutant | : yes | |

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.

15. REGULATORY INFORMATION

Related Regulations

Fire Service Law

Group 4, Type 2 petroleums, Water insoluble liquid, (1000 litre), Hazardous rank III

Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacture

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Substances Prevented From Impairment of Health

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

Substances Subject to be Notified Names

Article 57-2 (Enforcement Order Table 9)

| Chemical name | Number | Concentration (%) |
|---------------|--------|-------------------|
| Kerosine | 380 | >=90 - <100 |
| Nonane | 432 | >=1 - <10 |

Version 1.2 Revision Date 2024.07.16 Print Date 2024.11.04

Substances Subject to be Indicated Names

| Article 57 (Enforcement Order Article 18) | |
|---|--------|
| Chemical name | Number |
| Kerosine | 380 |
| Nonane | 432 |

Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

Ordinance on Prevention of Organic Solvent Poisoning

Not applicable

Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Inflammable Substance

Poisonous and Deleterious Substances Control Law

Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Class II Designated Chemical Substances

| Chemical name | Number | Concentration (%) |
|---------------|--------|-------------------|
| Nonane | 791 | 5.0 |

Vessel Safety Law

Flammable liquids (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)

Aviation Law

Flammable liquid (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)

Marine Pollution and Sea Disaster Prevention etc Law

Marine pollutant

Marine Pollution and Sea Disaster Prevention etc Law

Pack transportation : (Oil.)

Water Pollution Control Law

Oil emissions regulations (Law Art. 2-5, Enforcement Order Art. 3-4)

Waste Disposal and Public Cleansing Law

Specially Controlled Industrial Waste

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

TSCA : All components listed.

ENCS

: All components listed.

16. OTHER INFORMATION

SAFETY DATA SHEET

AeroShell Calibrating Fluid 2 (US)

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 | | |
|---------------------------|--|-----------------------|--|--|
| Full text of H-Statements | | | | |
| H226 | Flammable liquid and vapour. | | | |
| H304 | May be fatal if swallowed and enters airways | 5. | | |
| H315 | Causes skin irritation. | | | |
| H316 | Causes mild skin irritation. | | | |
| H336 | May cause drowsiness or dizziness. | | | |
| H372 | Causes damage to the central nervous system through prolonged or repeated exposure. | | | |
| H400 | Very toxic to aquatic life. | | | |
| H410 | Very toxic to aquatic life with long lasting effects. | | | |
| H411 | Toxic to aquatic life with long lasting effects. | | | |
| Full text of other abl | breviations | | | |
| Aquatic Acute | Short-term (acute) aquatic hazard | | | |
| Aquatic Chronic | Long-term (chronic) aquatic hazard | | | |
| Asp. Tox. | Aspiration hazard | | | |
| Flam. Liq. | Flammable liquids | | | |
| Skin Irrit. | Skin irritation | | | |
| STOT RE | Specific target organ toxicity - repeated exp | oosure | | |
| | | | | |

Specific target organ toxicity - single exposure

Abbreviations and Acronyms

STOT SE

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

| Version 1.2 | Revision Date 2024.07.16 | Print Date 2024.11.04 |
|---------------------|---|-----------------------|
| Further information | | |
| Other information | : A vertical bar () in the left margin indicates an amendment from the previous version. | |

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