



SAFETY DATA SHEET

Bartoline - Citronella Lantern and Torch oil

According to Regulation (EC) No 1907/2006 Annex II as amended by Regulation (EU) 2015/830.

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

1.1. Product identifier

Product name Bartoline - Citronella Lantern and Torch oil

REACH registration notes No REACH registration number required as this product is a mixture.

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

Identified uses Lamp oil for outdoor use in lanterns and torches.

Uses advised against Not to be used for cleaning skin as this may lead to skin disorders. Not to be used in indoor decorative oil lamps.

1.3. Details of the supplier of the safety data sheet

Supplier Bartoline Limited
Barmston Close
Beverley
East Yorkshire
HU17 0LW
01482 678710
info@bartoline.co.uk

Contact person Regulatory Affairs Manager

EU ADDRESS

1.4. Emergency telephone number

Emergency telephone 01482 678710 (8.30am - 4.45pm Monday to Friday) or NHS 111 (General Public) (24 Hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Asp. Tox. 1 - H304

Environmental hazards Not Classified

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2.2. Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

EUH208 Contains Citronellal, Geraniol , Citronellol. May produce an allergic reaction.
H304 May be fatal if swallowed and enters airways.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P331 Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
IF SWALLOWED: Immediately call a doctor/NHS 111.
P405 Store locked up.
P501 Dispose of contents/container to hazardous waste collection point.

Supplemental label information

EUH066 Repeated exposure may cause skin dryness or cracking.
TO AVOID THE RISK OF SPILLAGE ALWAYS ENSURE THE LID IS SECURE AND THE CONTAINER IS SECURED UPRIGHT DURING TRANSPORTATION AND STORAGE.
NEVER LEAVE A BURNING LAMP UNATTENDED.
JUST A SIP OF LAMP OIL - OR EVEN SUCKING THE WICK OF LAMPS MAY LEAD TO LIFE THREATENING LUNG DAMAGE.
Keep lanterns and torches filled with this liquid out of reach of children

Contains

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

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
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| Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics | 60-100% |
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| | | |
|---------------|----------------------|--|
| CAS number: — | EC number: 926-141-6 | REACH registration number: 01-2119456620-43-XXXX |
|---------------|----------------------|--|

Classification

Asp. Tox. 1 - H304

Citronellal

<1%

| | |
|----------------------|----------------------|
| CAS number: 106-23-0 | EC number: 203-376-6 |
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Classification

Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317

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| | |
|-----------------------|----------------------|
| Geraniol | <1% |
| CAS number: 106-24-1 | EC number: 203-377-1 |
| Classification | |
| Skin Irrit. 2 - H315 | |
| Eye Dam. 1 - H318 | |
| Skin Sens. 1 - H317 | |
| Citronellol | <1% |
| CAS number: 106-22-9 | EC number: 203-375-0 |
| Classification | |
| Skin Irrit. 2 - H315 | |
| Eye Irrit. 2 - H319 | |
| Skin Sens. 1 - H317 | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments

A complex and variable combination of paraffinic and cyclic hydrocarbons having a carbon number range predominantly of C11 to C14 and boiling in the range of approximately 180°C to 270°C.

The aromatic content is < 0.5%. Under REACH some substances were registered which did not previously have an EC number assigned, or for which a registrant did not indicate the existing assigned EC number. These substances may have been assigned a Provisional List number by ECHA's IT systems or by ECHA's Substance ID team. In time ECHA plans to verify the substance identification of these substances, and it is only when the substance identification has been verified that the provisional list number will be published in the EC inventory and become official. Related CAS No 64742-47-8. INCI CAS No - 8008-20-6

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SECTION 4: First aid measures

4.1. Description of first aid measures

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| General information | Remove affected person from source of contamination. IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR THE NHS 111 SERVICE. |
| Inhalation | Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. |
| Ingestion | Do not ingest. DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately! Provide rest, warmth and fresh air. |
| Skin contact | Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing. |
| Eye contact | Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Get medical attention if symptoms are severe or persist after washing. |
| Protection of first aiders | First aid personnel should wear appropriate protective equipment during any rescue. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. |

4.2. Most important symptoms and effects, both acute and delayed

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|----------------------------|---|
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | Vapours inhaled in strong concentration have a narcotic effect on the central nervous system. Irritation of the respiratory tract due to excessive fume, causes headache, drowsiness or other effects to the central nervous system, loss of consciousness. |
| Ingestion | May cause stomach pain or vomiting. There may be irritation of the throat. There may be soreness and redness of the mouth and throat. Nausea, vomiting, abdominal pain. The product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause central nervous system depression. |
| Skin contact | Prolonged or repeated contact may cause irritation and dry skin. |
| Eye contact | Burning feeling and temporary redness. |

4.3. Indication of any immediate medical attention and special treatment needed

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| Notes for the doctor | Treat symptomatically. |
| Specific treatments | The most severe risk is through ingestion, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours). |

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentrations.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire vapours. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control. Containers close to fire should be removed or cooled with water.

Special protective equipment for firefighters Wear self-contained breathing apparatus and protective suit. In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Other information Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate area. Keep unnecessary and unprotected personnel away from the spillage. No smoking, sparks, flames or other sources of ignition near spillage. Do not touch or walk into spilled material. Do not enter storage areas or confined spaces unless adequately ventilated. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Take precautionary measures against static discharges. Take care as floors and other surfaces may become slippery. Stop all work that requires a naked flame, stop all vehicles, stop all machines and equipment that may cause sparks or flames.

For non-emergency personnel Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in the immediate area). Stop leak if you can do so without risk. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Dam or absorb spillage with non-combustible material such as earth, sand or booms, pads or absorbent granules. Use clean non-sparking tools to collect absorbed material. Water Spill: Stop leak if you can do so without risk. Eliminate sources of ignition. Warn or evacuate occupants in surrounding and downwind areas if required, due to the toxicity or flammability of the material. If the flashpoint exceeds the ambient air temperature by 10 degrees C or more, use containment booms and remove from the surface by skimming or with suitable absorbents. If the flashpoint does not exceed the ambient air temperature by at least 10 degrees C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

For emergency responders Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. For waste disposal, see section 13.

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6.2. Environmental precautions

Environmental precautions The product is insoluble in water and will spread on the water surface. Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Use clean non-sparking tools to collect absorbed material. To prevent release, place container with damaged side up. Cover large spillages with alcohol-resistant foam. Absorb spillage with non-combustible, absorbent material. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Following product recovery, flush area with water.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read label before use. Do not handle until all safety precautions have been read and understood. Avoid inhalation of vapours and contact with skin and eyes. Container must be kept tightly closed when not in use. Keep out of the reach of children. Always follow manufacture's instructions regarding filling the lantern/torch. Use only outdoors or in a well-ventilated area. OPERATE ONLY ON COLD AND DEGASSED TANKS IN VENTILATED PREMISES (TO AVOID RISK OF EXPLOSION). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash promptly with soap and water if skin becomes contaminated. Take off immediately all contaminated clothing and wash it before reuse. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Wash hands thoroughly after handling.

Technical measures Do not spray at high pressure (> 3 bar) unless a full risk assessment has been carried out and suitable protection measures put in place. WHILE MOVING THE PRODUCT: To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Do not allow splash loading and ensure that the product is poured slowly, particularly at the beginning of the operation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep locked up and out of the reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in the original container.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) Lamp oil for outdoor use in lanterns and torches. Advised against any other use than those identified.

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Usage description

Always follow on pack instructions when using this product. Apply "common sense" measures when handling this product. Keep out of reach of children. NEVER LEAVE A BURNING LAMP UNATTENDED. Never refill lamps which are already burning. After lighting the lamp observe the flame. A flame, which is too high will cause unnecessary smoking. To alleviate this lower the wick. It is essential the wick is kept trimmed. After use, replace cap securely and store container in a safe place away from sources of ignition.

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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

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

Long-term exposure limit (8-hour TWA): WEL 1200 mg/m³ vapour

WEL = Workplace Exposure Limit.

| | |
|-------------|--|
| DNEL | According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified. |
| PNEC | PNEC is not meaningful for petroleum substances Aquatic PNECs for hydrocarbon blocks are derived using HC5 method and target lipid model using representative structures |

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

| | |
|----------------------------|---|
| Ingredient comments | The Workplace Exposure Limited quoted is an advisory level from the CEFIC-HSPA. The figures quoted below are taken from the registration document and/or the substance manufacturers data sheet. |
| DNEL | Available hazard data do not support the need for a DNEL to be established for other health effects. |
| PNEC | No PNEC available Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance. |

8.2. Exposure controls

Protective equipment



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| Personal protection | Protective engineering solutions should be implemented and in use before Personal Protective Equipment (PPE) is considered. |
| Eye/face protection | No specific eye protection required during normal use. Where there is a risk of splashes to the eyes it is recommended that safety glasses/goggles approved to EN166 standard are worn. |
| Hand protection | To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Nitrile rubber. Chloroprene rubber. |
| Other skin and body protection | Wear appropriate clothing to prevent repeated or prolonged skin contact. |
| Hygiene measures | Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes wet or contaminated. |
| Respiratory protection | If used in accordance with section 7 of this MSDS the use of respiratory protection should not be required. |
| Environmental exposure controls | Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Keep container tightly sealed when not in use. Do not allow material to contaminate ground water system. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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| Appearance | Clear liquid. |
| Colour | Colourless. |
| Odour | Faint Hydrocarbons Citrus. |
| pH | Not applicable. |
| Melting point | Not available. |
| Initial boiling point and range | 190 - 280 °C ISO 3405 |
| Flash point | > 75 °C ISO 2719 |
| Evaporation rate | 600 EtEt=1 DIN 53170 |
| Upper/lower flammability or explosive limits | Upper flammable/explosive limit: 6 % Lower flammable/explosive limit: 0.5 % |
| Vapour pressure | 0.15 hPa @ 20°C |
| Vapour density | > 1 |
| Relative density | 815 kg/m ³ @ 15 °C ISO 12185 |
| Solubility(ies) | Water Substance is a UVCB. Standard tests for this endpoint are not appropriate. Soluble in the following materials: Organic solvents. |
| Auto-ignition temperature | 220°C/428°F |
| Viscosity | < 20.5 mm ² /s @ 40 °C |
| Explosive properties | Not considered explosive based on chemical structure and oxygen balance considerations. |
| Oxidising properties | This product is not considered oxidising based on chemical structure considerations. |
| Comments | Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures. This product is a UVCB substance and its composition will be variable, so reported properties may vary or require a range of values to describe them. |

9.2. Other information

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| Volatile organic compound | This product contains a maximum VOC content of 805 g/l. |
| Surface tension | 0.0257 N/m @ 25 °C |

SECTION 10: Stability and reactivity

10.1. Reactivity

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| Reactivity | The reactivity data for this product will be typical of those for the following class of materials: Hydrocarbons. There are no known reactivity hazards associated with this product. |
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10.2. Chemical stability

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| Stability | Stable under the prescribed storage conditions. See Section 10.3 (Possibility of hazardous reactions) for further information. |
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10.3. Possibility of hazardous reactions

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|---|--|
| Possibility of hazardous reactions | Under normal conditions of storage and use, no hazardous reactions will occur. |
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10.4. Conditions to avoid

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Conditions to avoid

Containers can burst violently or explode when heated, due to excessive pressure build-up. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Do not pressurise, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition. Avoid the accumulation of vapours in low or confined areas. Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Take precautionary measures against static discharges.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Strong acids. Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other health effects Frequent or prolonged skin contact destroys the lipoacid cutaneous layer and may cause dermatitis.
Repeated exposure may cause skin dryness or cracking

Toxicological information on ingredients.

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

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| Toxicological effects | The data quoted is taken from the REACH registration portal for this substance and the suppliers MSDS. |
| <u>Acute toxicity - oral</u> | |
| Acute toxicity oral (LD₅₀ mg/kg) | 5,000.1 |
| Species | Rat |
| Notes (oral LD₅₀) | The suppliers MSDS quotes a LD 50 >5000mg/kg bw (rat - OECD 401) |
| ATE oral (mg/kg) | 5,000.1 |
| <u>Acute toxicity - dermal</u> | |
| Acute toxicity dermal (LD₅₀ mg/kg) | 5,000.1 |
| Species | Rabbit |
| Notes (dermal LD₅₀) | The suppliers MSDS quotes a LC 50 of >5000mg/kg/bw (Rabbit - OECD 402) |
| ATE dermal (mg/kg) | 5,000.1 |
| <u>Acute toxicity - inhalation</u> | |
| Notes (inhalation LC₅₀) | The suppliers MSDS quotes a LC50 of >5000mg/m ³ (vapour) (Rat - OECD 403) |
| <u>Skin corrosion/irritation</u> | |
| Animal data | Classification as a dermal irritant is not warranted under Regulation (EC) 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP). However Prolonged or repeated contact dry the skin and cause irritation. |
| <u>Serious eye damage/irritation</u> | |
| Serious eye damage/irritation | Based on the individual and mean scores of ocular irritations, test substance would not be considered an ocular irritant under either EU GHS guidelines or under the EU requirements for dangerous substances and preparations guidelines. |
| <u>Respiratory sensitisation</u> | |
| Respiratory sensitisation | Based on available data the classification criteria are not met. Not sensitising. |
| <u>Skin sensitisation</u> | |
| Skin sensitisation | Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. |
| <u>Germ cell mutagenicity</u> | |
| Genotoxicity - in vitro | Negative. |
| Genotoxicity - in vivo | Negative. |
| <u>Carcinogenicity</u> | |

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| Carcinogenicity | Based on available data the classification criteria are not met. There is no evidence that the product can cause cancer. |
| <u>Reproductive toxicity</u> | |
| Reproductive toxicity - fertility | Based on available data the classification criteria are not met. No evidence of reproductive toxicity in animal studies. |
| Reproductive toxicity - development | Results of guideline developmental toxicity studies on the substance and OECD developmental toxicity screening studies showed no evidence of developmental toxicity in rats. |
| <u>Specific target organ toxicity - single exposure</u> | |
| STOT - single exposure | Based on available data the classification criteria are not met. |
| <u>Specific target organ toxicity - repeated exposure</u> | |
| STOT - repeated exposure | Based on available data the classification criteria are not met. |
| <u>Aspiration hazard</u> | |
| Aspiration hazard | Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. May be fatal if swallowed and enters airways. |
| <u>Inhalation</u> | |
| Inhalation | Vapours inhaled in strong concentrations have a narcotic effect on the central nervous system. Irritation of the respiratory tract due to excessive fume. Causes headache, drowsiness or other effects to the central nervous system, loss of consciousness. Causes asphyxiation in high concentrations. The victim will not realize that he/she is suffocating. |
| <u>Ingestion</u> | |
| Ingestion | If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause central nervous system depression |
| <u>Skin contact</u> | |
| Skin contact | Prolonged or repeated contact may dry skin and cause irritation. Frequent or prolonged skin contact destroys the lipacid cutaneous layer and may cause dermatitis. |
| <u>Eye contact</u> | |
| Eye contact | This mixture does not meet the EU criteria for classification. Any eye contact may cause a burning feeling and temporary redness. |
| <u>Route of exposure</u> | |
| Route of exposure | Inhalation Ingestion Skin and/or eye contact |
| <u>Target organs</u> | |
| Target organs | Central nervous system Eyes Mucous membranes Respiratory system, lungs Skin |
| <u>Medical considerations</u> | |
| Medical considerations | The following pre-existing or historic medical conditions of the worker may lead to an increased risk of adverse health effects following exposure to this product: Chronic respiratory and obstructive airway diseases. History of smoking. Pre-existing eye problems. Skin disorders and allergies. |

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SECTION 12: Ecological information

Ecological information on ingredients.

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

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Ecological information on ingredients.

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

Acute aquatic toxicity

Acute toxicity - fish

Water accommodated fractions of the test substance produced a 96-hour LL50 value of >1000 mg/L and a LL0 value of 1000 mg/L with rainbow trout, *Oncorhynchus mykiss*. No mortality was observed in the control or treatment solutions.

Acute toxicity - aquatic invertebrates

The water accommodated fraction (WAF) of the test substance did not produce a 50% effect (immobility) with *Daphnia magna* at a loading of 1000 mg/L after a 48-hour exposure. Therefore, the 48-hour LL50 is reported as >1000 mg/L. There was no mortality at the 1000 mg/L loading level after 48 hours. Therefore, the 48-hour LL0 for mortality is reported as 1000 mg/L. There was also no mortality in the control.

Acute toxicity - aquatic plants

Growth in an alga culture, as measured by biomass and growth rate, exposed to a 1000 mg/L water accommodated fraction of the test substance was not inhibited when compared to the control after a 72-hour exposure. Therefore, the 72-hr EL50 and NOELR values for these two endpoints are reported as >1000 mg/L and 1000 mg/L, respectively.

Acute toxicity - microorganisms

The aquatic toxicity was estimated using the Petrotox computer model, which combines a partitioning model used to calculate the aqueous concentration of hydrocarbon components as a function of substance loading with the Target Lipid Model used to calculate acute and chronic toxicity of non-polar narcotic chemicals. Petrotox computes toxicity based on the summation of the aqueous-phase concentrations of hydrocarbon block(s) that represent a hydrocarbon substance and membrane-water partition coefficients (KMW) that describe the partitioning of the hydrocarbons between the water and organism. The hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics, estimated protozoan, *Tetrahymena pyriformis*, 48-hr EL50 value is >1000 mg/L based on growth inhibition.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage

No Observable Effect Loading Rate (NOELR), 28 days: 0,17 mg/l, *Oncorhynchus mykiss* (Rainbow trout), QSAR petrotox

Chronic toxicity - aquatic invertebrates

No Observable Effect Loading Rate (NOELR), 21 days: 1,22 mg/l, *Daphnia magna*, QSAR Petrotox

12.2. Persistence and degradability

Ecological information on ingredients.

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

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Persistence and degradability

The test substance, a multi-component substance, biodegraded to an extent of 69% after 28 days. The data support characterizing the test substance as rapidly biodegradable, readily biodegradable, not expected to persist in the environment under aerobic conditions. Although it did not meet the 10-day window requirement, it is characterized as readily biodegradable because the criterium is not applied to multi-component substances when assessing their ready biodegradability.

12.3. Bioaccumulative potential

Ecological information on ingredients.

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

Bioaccumulative potential

Measured experimental data on hydrocarbon UVCB substances are not meaningful, since each of the constituents is likely to behave differently.

12.4. Mobility in soil

Ecological information on ingredients.

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

Mobility

Substance is a UVCB. Standard tests for this endpoint are not appropriate.

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

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

Results of PBT and vPvB assessment

This substance is considered not to be PBT and vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. The packaging must be empty (drop-free when inverted). Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods

Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Waste liquid components should be suitable for incineration at an approved facility. Incineration or landfill should only be considered when recycling is not feasible. Waste packaging should be collected for reuse or recycling. Do not pressurise, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition.

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Waste class

The following EU Waste Catalogue codes are applicable to this product: Unused liquid waste; 13.07.03 other fuels Empty used containers should be disposed of as waste code 15 01 10 packaging containing residues of or contaminated by dangerous substances. Note For a waste container to be classed as a packaging waste (15 01) it must be effectively 'empty'.

It is usually obvious if a container is 'empty', for example a half empty tin of solidified paint is not empty, but where there is a small amount of residual material a container will not be empty if that residual material can be removed by physical or mechanical means by applying normal industry standards or processes.

This means that all reasonable efforts must have been made to remove any left-over contents from the container. This may involve for example washing, draining or scraping. The method of emptying will depend on the container and the type of material it contains.

Note: if the design of the packaging, its aperture, or the adherent nature of the material does not permit it to be emptied then it will not be a packaging waste.

If a container is not 'empty' it is not packaging waste. It should be classified on the basis of its contents and the source or activity that produced it. For example 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances. Any absorbents used for clearing up spills should be disposed of using waste code: These codes have been assigned based on the actual composition of the product as supplied. If mixed with other wastes, the waste codes quoted may not be applicable.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

UN No. (ADN) 9003

14.2. UN proper shipping name

Proper shipping name (ADN) Substances with a flash-point above 60 degrees C and not more than 100 degrees C

14.3. Transport hazard class(es)

ADN class 9

14.4. Packing group

Not applicable.

ADN packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

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SECTION 15: Regulatory information

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

National regulations

Users of this product are reminded of their duties under the current Control of Substances Hazardous to Health Regulations and a suitable and sufficient assessment of all the risk should be undertaken before using this product. The guidelines given in the HSE publication COSHH ESSENTIALS - Easy Steps To Control Chemicals gives sound advice for deciding safe working control measures.

Dangerous Substances and Explosive Atmospheres Regulations 2002.

EH40/2005 Workplace exposure limits.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

Health and Safety at Work etc. Act 1974 (as amended).

EU legislation

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance

Workplace Exposure Limits EH40.

Authorisations (Annex XIV Regulation 1907/2006)

No specific authorisations are known for this product.

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15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

Complies

Canada - DSL/NDSL

Complies

US - TSCA

Complies

Australia - AICS

Complies

Japan - ENCS

Complies

Korea - KECI

Complies

China - IECSC

Complies

Philippines – PICCS

Complies

New Zealand - NZIOC

Complies

SECTION 16: Other information

| | |
|----------------------------------|---|
| Training advice | The information on directions for use can be found on the product label. It is important to ensure that anyone using this product in the workplace has been adequately trained and in particular: The use of personal protective equipment, methods of cleaning up and disposal of waste. The basic first aid arrangements. |
| Issued by | Regulatory Affairs Manager |
| Revision date | 14/02/2022 |
| Revision | 1 |
| SDS number | 6221 |
| Hazard statements in full | H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. EUH208 Contains Citronellal, Geraniol , Citronellol. May produce an allergic reaction. |

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The information contained in this data sheet is provided in accordance with the requirements of the Regulation (EC) No 1907/2006 Annex II as amended by Regulation (EU) 2015/830 and Regulation (EC) No 1272/2008 (CLP). The product should not be used for purposes other than those shown in Section 1.2. As the specific conditions of use are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet is based on the present knowledge and the current EU and UK Legislation. It provides guidance on health, safety and environmental aspects of the product and should not be taken as a product specification. This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.