



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 30-Sep-2024

Revision Number 1

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

1.1. Product identifier

| | |
|---------------------------------|--------------------------------------|
| Product Code(s) | DRE-L20515000CY |
| Product Name | Anthanthrene 10 µg/mL in Cyclohexane |
| Form | Not applicable |
| Unique Formula Identifier (UFI) | 4UQW-U0J5-600R-EPCF |
| Pure substance/mixture | Mixture |

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

| | |
|----------------------|--------------------------|
| Recommended use | Laboratory use |
| Uses advised against | No information available |

1.3. Details of the supplier of the safety data sheet

Supplier

LGC Limited
Queens Road
Teddington
Middlesex TW11 0LY
UNITED KINGDOM
:+44 (0) 20 8943 7000
Fax :+44 (0) 20 8943 2767
eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

For further information, please contact

E-mail address sds-request@lgcgroup.com

1.4. Emergency telephone number

| | |
|---------------------|--|
| Emergency Telephone | For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire Exposure, or Accident Call CHEMTREC: USA & Canada 1-800-424-9300 Rest of the world +1 703-741-3877 |
|---------------------|--|



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| Emergency Telephone - §45 - (EC)1272/2008 | |
|---|--------------------------|
| Europe | 112 |
| Austria | No information available |
| Bulgaria | |
| Croatia | |
| Cyprus | |
| Czech Republic | |
| Denmark | |
| France | |
| Hungary | |
| Ireland | |
| Italy | |
| Lithuania | |
| Luxembourg | |
| Netherlands | |
| Norway | |
| Portugal | |
| Romania | |
| Slovakia | |
| Slovenia | |
| Spain | |
| Sweden | |
| Switzerland | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to
Regulation (EC) No. 1272/2008 [CLP]

| | |
|--|---------------------|
| Aspiration hazard | Category 1 - (H304) |
| Skin corrosion/irritation | Category 2 - (H315) |
| Specific target organ toxicity — single exposure | Category 3 - (H336) |
| Category 3 Narcotic effects | |
| Acute aquatic toxicity | Category 1 - (H400) |
| Chronic aquatic toxicity | Category 1 - (H410) |
| Flammable liquids | Category 2 - (H225) |

2.2. Label elements

Contains Cyclohexane



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Signal word
Danger

Hazard statements

H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H410 - Very toxic to aquatic life with long lasting effects
H225 - Highly flammable liquid and vapour

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P273 - Avoid release to the environment
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P331 - Do NOT induce vomiting
P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish
P391 - Collect spillage
P403 + P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards

No information available.

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

| Chemical name | EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation | EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances |
|---------------|---|--|
| Cyclohexane | - | - |

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable



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3.2 Mixtures

Chemical nature Mixture of organic compounds.

| Chemical name | Weight-% | REACH registration number | EC No (EU Index No) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|-------------------------|----------|---------------------------|---------------------|---|------------------------------------|----------|----------------------|
| Cyclohexane 110-82-7 | 80 - 100 | - | 203-806-2 | Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) | | | |

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

| Chemical name | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|-------------------------|-----------------|-------------------|---|--|--------------------------------------|
| Cyclohexane 110-82-7 | 12705 | 2000 | 32.88 | No data available | No data available |

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention. Delayed



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| | |
|---|--|
| | pulmonary edema may occur. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists. |
| Ingestion | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention. |
| Self-protection of the first aider | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing. |

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

| | |
|-----------------|--|
| Symptoms | Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
|-----------------|--|

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

| | |
|------------------------|---|
| Note to doctors | Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances. |
|------------------------|---|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|---------------------------------------|---|
| Suitable Extinguishing Media | Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam. |
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |

5.2. Special hazards arising from the substance or mixture

| | |
|---|---|
| Specific hazards arising from the chemical | Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
|---|---|



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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling



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Advice on safe handling

Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

| Chemical name | European Union | Austria | Belgium | Bulgaria | Croatia |
|-------------------------|--|---|--|--|---|
| Cyclohexane 110-82-7 | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ STEL 800 ppm STEL 2800 mg/m ³ | TWA: 100 ppm TWA: 350 mg/m ³ | TWA: 200 ppm TWA: 700.0 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ Sk* |



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| Chemical name | Cyprus | Czech Republic | Denmark | Estonia | Finland |
|-------------------------|---|---|---|---|---|
| Cyclohexane 110-82-7 | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 700 mg/m ³ Ceiling: 2000 mg/m ³ | TWA: 50 ppm TWA: 172 mg/m ³ STEL: 100 ppm STEL: 344 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 100 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 875 mg/m ³ |
| Chemical name | France | Germany TRGS | Germany DFG | Greece | Hungary |
| Cyclohexane 110-82-7 | TWA: 200 ppm TWA: 700 mg/m ³ STEL: 375 ppm STEL: 1300 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ Peak: 800 ppm Peak: 2800 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ |
| Chemical name | Ireland | Italy MDLPS | Italy AIDII | Latvia | Lithuania |
| Cyclohexane 110-82-7 | TWA: 200 ppm TWA: 700 mg/m ³ STEL: 600 ppm STEL: 2100 mg/m ³ | TWA: 100 ppm TWA: 350 mg/m ³ | TWA: 100 ppm TWA: 344 mg/m ³ | TWA: 23 ppm TWA: 80 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ |
| Chemical name | Luxembourg | Malta | Netherlands | Norway | Poland |
| Cyclohexane 110-82-7 | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ STEL: 400 ppm STEL: 1400 mg/m ³ | TWA: 150 ppm TWA: 525 mg/m ³ STEL: 187.5 ppm STEL: 656.25 mg/m ³ | TWA: 300 mg/m ³ STEL: 1000 mg/m ³ Sk* |
| Chemical name | Portugal | Romania | Slovakia | Slovenia | Spain |
| Cyclohexane 110-82-7 | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ | TWA: 200 ppm TWA: 700 mg/m ³ STEL: 2800 mg/m ³ STEL: 800 ppm | TWA: 200 ppm TWA: 700 mg/m ³ |
| Chemical name | Sweden | | Switzerland | | United Kingdom |
| Cyclohexane 110-82-7 | NGV: 200 ppm NGV: 700 mg/m ³ | | TWA: 200 ppm TWA: 700 mg/m ³ STEL: 800 ppm STEL: 2800 mg/m ³ | | TWA: 100 ppm TWA: 350 mg/m ³ STEL: 300 ppm STEL: 1050 mg/m ³ |

Biological occupational exposure limits

| Chemical name | European Union | Austria | Bulgaria | Croatia | Czech Republic |
|-------------------------|----------------|---------|----------|---|----------------|
| Cyclohexane 110-82-7 | - | - | - | 150 mg/g Creatinine - urine (1,2-Cyclohexanedi ol) - at the end of the work shift; at chronic exposure after several successive shifts 450 µg/L - blood | - |



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| | | | | | |
|-------------------------|--|---------|---|---|--|
| | | | | (Cyclohexanol) - during exposure 3.20 mg/g Creatinine - urine (Cyclohexanol) - during the second half of the work shift | |
| Chemical name | Denmark | Finland | France | Germany DFG | Germany TRGS |
| Cyclohexane 110-82-7 | - | - | - | 150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) end of shift) 150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 150 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine | 150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) end of shift) 150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) |
| Chemical name | Slovenia | Spain | Switzerland | United Kingdom | |
| Cyclohexane 110-82-7 | 150 mg/g Creatinine - urine (1,2-Cyclohexanediol (after hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays | - | 150 mg/g creatinine (urine - total 1,2-Cyclohexanediol end of shift, and after several shifts (for long-term exposures)) 146 µmol/mmol creatinine (urine - total 1,2-Cyclohexanediol end of shift, and after several shifts (for long-term exposures)) | - | |

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls



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Personal protective equipment

| | |
|---------------------------------|---|
| Eye/face protection | Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing safety goggles. |
| Hand protection | Wear protective nitrile rubber gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear suitable gloves. Impervious gloves. |
| Skin and body protection | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. |
| Environmental exposure controls | Do not allow into any sewer, on the ground or into any body of water. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|--------------------------|
| Physical state | Liquid |
| Appearance | Liquid |
| Colour | colourless |
| Odour | Odourless. |
| Odour threshold | No information available |

| Property | Values | Remarks • Method |
|---|---------------------------------|------------------|
| Melting point / freezing point | 6.5 °C | None known |
| Initial boiling point and boiling range | 80.7 °C | None known |
| Flammability | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | 9,3 Vol% - 326 g/m ³ | |
| Lower flammability or explosive limits | 1 Vol% - 35 g/m ³ | |
| Flash point | -20 °C | None known |



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| | | |
|----------------------------|--------------------------|--------------------------|
| Autoignition temperature | 260 °C | None known |
| Decomposition temperature | | None known |
| pH | No data available | None known |
| pH (as aqueous solution) | No data available | No information available |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | 0.894 mPa s | @ 20°C |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | 3.44 | None known |
| Vapour pressure | 103 hPa | @ 20°C |
| Relative density | 0.78 | None known |
| Bulk density | No data available | |
| Liquid Density | No data available | |
| Relative vapour density | 2.9 | None known |
| Particle characteristics | | |
| Particle Size | No information available | |
| Particle Size Distribution | No information available | |

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid



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Conditions to avoid Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

| | |
|---------------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause drowsiness or dizziness. |
| Eye contact | Specific test data for the substance or mixture is not available. May cause irritation. |
| Skin contact | Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). |
| Ingestion | Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 99,999.00 mg/kg



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| | |
|-------------------------------|-----------------|
| ATEmix (dermal) | 99,999.00 mg/kg |
| ATEmix (inhalation-gas) | 99,999.00 ppm |
| ATEmix (inhalation-dust/mist) | 99,999.00 mg/l |
| ATEmix (inhalation-vapour) | 99,999.00 mg/l |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|-----------------------|-------------------------|--------------------------|
| Cyclohexane | = 12705 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 32.88 mg/L (Rat) 4 h |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|-----------------------------------|---|
| Skin corrosion/irritation | Classification based on data available for ingredients. Causes skin irritation. |
| Serious eye damage/eye irritation | No information available. |
| Respiratory or skin sensitisation | No information available. |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | May cause drowsiness or dizziness. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | May be fatal if swallowed and enters airways. |

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties



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Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---------------|---|--|----------------------------|-------------------------------------|
| Cyclohexane | EC50: >500mg/L (72h, Desmodesmus subspicatus) | LC50: 3.96 - 5.18mg/L (96h, Pimephales promelas) LC50: 23.03 - 42.07mg/L (96h, Pimephales promelas) LC50: 24.99 - 44.69mg/L (96h, Lepomis macrochirus) LC50: 48.87 - 68.76mg/L (96h, Poecilia reticulata) | - | EC50: 3.78mg/L (48h, Daphnia magna) |

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Cyclohexane | 3.44 |

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment



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PBT and vPvB assessment The product contains substance(s) classified as PBT or vPvB.

| Chemical name | PBT and vPvB assessment |
|---------------|---------------------------------|
| Cyclohexane | The substance is not PBT / vPvB |

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number UN1145
14.2 UN proper shipping name Cyclohexane mixture
14.3 Transport hazard class(es) 3
14.4 Packing group II
Description UN1145, Cyclohexane mixture, 3, II
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions None
ERG Code 3H

IMDG

14.1 UN number or ID number UN1145
14.2 UN proper shipping name Cyclohexane mixture
14.3 Transport hazard class(es) 3
14.4 Packing group II



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Description UN1145, Cyclohexane mixture, 3, II, (-20°C c.c.), Marine pollutant
14.5 Marine pollutant P
Environmental hazards Yes
14.6 Special precautions for user
Special Provisions None
EmS-No. F-E, S-D No information available
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN1145
14.2 UN proper shipping name Cyclohexane mixture
14.3 Transport hazard class(es) 3
14.4 Packing group II
Description UN1145, Cyclohexane mixture, 3, II, Environmentally Hazardous
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions None
Classification code F1

ADR

14.1 UN number or ID number UN1145
14.2 UN proper shipping name Cyclohexane mixture
14.3 Transport hazard class(es) 3
14.4 Packing group II
Description UN1145, Cyclohexane mixture, 3, II, (D/E), Environmentally Hazardous
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions None
Classification code F1
Tunnel restriction code (D/E)

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

| Chemical name | French RG number | Title |
|-------------------------|------------------|-------|
| Cyclohexane 110-82-7 | RG 84 | - |

Water hazard class (WGK) obviously hazardous to water (WGK 2)



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European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|------------------------|--|---|
| Cyclohexane - 110-82-7 | 57 75 | |

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA

LGC has not confirmed that the chemical substances in this product are on the TSCA Inventory, and LGC is distributing this product solely for use either in applications statutorily exempt from TSCA and regulated under other laws (e.g., FFDCA, FIFRA) or in research and development activities in accordance with the TSCA Inventory R&D exemption provided at 40 CFR 720.36. It is the end-user's responsibility to understand and follow the requirements that apply to its use of this product.

DSL/NDSL

EINECS/ELINCS

Contact supplier for inventory compliance status

Contact supplier for inventory compliance status



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| | |
|-------|--|
| ENCS | Contact supplier for inventory compliance status |
| IECSC | Contact supplier for inventory compliance status |
| KECI | Contact supplier for inventory compliance status |
| PICCS | Contact supplier for inventory compliance status |
| AIIC | Contact supplier for inventory compliance status |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment is not required for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | Sk* | Skin designation |

| Classification procedure | |
|---|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |



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| | |
|---------------------------------------|-----------------------|
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |
| Flammable liquids | On basis of test data |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer



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The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

End of Safety Data Sheet