

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

Revision date 14-Jan-2025 Revision Number 1

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

1.1. Product identifier

Product Code(s) DRE-L20510000CY

Product Name Acenaphthylene 10 μg/mL in Cyclohexane

Form Not applicable

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@lgcstandards.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

Emergency Telephone - §45 - (EC)1272/2008

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No information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Classification according to

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

Flammable liquids	Category 2 - (H225)
Skin irritation	Category 2 - (H315)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Target organ effects: Narcotic effects.	
Aspiration hazard	Category 1 - (H304)
Hazardous to the aquatic environment - acute	Category 1 - (H400)
Hazardous to the aquatic environment - chronic	Category 1 - (H410)

2.2. Label elements

Contains Cyclohexane

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Signal word Danger

Hazard statements

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.

H410 - Very toxic to aquatic life with long lasting effects.

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

2.3. Other hazards

No information available.

PBT & vPvB

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

 Acenaphthylene

SECTION 3: Composition/information on ingredients

3.1 Substances

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Not applicable

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 (long-ter m)	Notes
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)	-	•	-	-
Acenaphthylene 208-96-8	<0.1	-	205-917-1	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) STOT SE 3 (H335)	-	-	-	-

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	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	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 >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

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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. Delayed 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.

Effects of Exposure No information available.

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

Note to doctorsBecause 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 (CO2). Water spray. Alcohol resistant foam.

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Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing mediaDo 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.

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.

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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

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.

Storage class (TRGS 510)

LGK 3.

7.3. Specific end use(s)

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

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Cyclohexane	TWA: 200 ppm	TWA: 200 ppm	TWA: 100 ppm	TWA: 200 ppm	TWA: 200 ppm
110-82-7	TWA: 700 mg/m ³	TWA: 700 mg/m ³	TWA: 350 mg/m ³	TWA: 700.0 mg/m ³	TWA: 700 mg/m ³
		STEL 800 ppm			Sk*
		STEL 2800 mg/m ³			
Acenaphthylene	-	Sk*	-	Sk*	-
208-96-8		2 1 2 1 11			-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Cyclohexane	TWA: 200 ppm	TWA: 700 mg/m ³	TWA: 50 ppm	TWA: 200 ppm	TWA: 100 ppm
110-82-7	TWA: 700 mg/m ³	Ceiling: 2000 mg/m ³	TWA: 172 mg/m ³	TWA: 700 mg/m ³	TWA: 350 mg/m ³
			STEL: 100 ppm		STEL: 250 ppm
			STEL: 344 mg/m ³	01 *	STEL: 875 mg/m ³
Acenaphthylene	-	-	TWA: 0.2 mg/m ³	Sk*	Sk*
208-96-8			STEL: 0.4 mg/m ³ Benzene soluble		
			fraction		
			Sk*		
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Cyclohexane	TWA: 200 ppm	TWA: 200 ppm	TWA: 200 ppm	TWA: 200 ppm	TWA: 200 ppm
110-82-7	TWA: 700 mg/m ³	TWA: 700 mg/m ³	TWA: 700 mg/m ³	TWA: 700 mg/m ³	TWA: 700 mg/m ³
110 02 7	STEL: 375 ppm	1 vv/\. 700 mg/m	Peak: 800 ppm	1 vv/ \. 7 00 mg/m	1 vv/ (. 7 00 mg/m
	STEL: 1300 mg/m ³		Peak: 2800 mg/m ³		
Acenaphthylene	-	-	Sk*	-	-
208-96-8					
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Cyclohexane	TWA: 200 ppm	TWA: 100 ppm	TWA: 100 ppm	TWA: 23 ppm	TWA: 200 ppm
110-82-7	TWA: 700 mg/m ³	TWA: 350 mg/m ³	TWA: 344 mg/m ³	TWA: 80 mg/m ³	TWA: 700 mg/m ³
	STEL: 600 ppm				
	STEL: 2100 mg/m ³				
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Cyclohexane	TWA: 200 ppm	TWA: 200 ppm	TWA: 200 ppm	TWA: 150 ppm	TWA: 300 mg/m ³
110-82-7	TWA: 700 mg/m ³	TWA: 700 mg/m ³	TWA: 700 mg/m ³	TWA: 525 mg/m ³	STEL: 1000 mg/m ³
			STEL: 400 ppm	STEL: 187.5 ppm	Sk*
			STEL: 1400 mg/m ³	STEL: 656.25 mg/m ³	
Acenaphthylene	-	-	TWA: 550 ng/m ³	TWA: 0.04 mg/m ³	TWA: 0.002 mg/m ³
208-96-8			Sk*	STEL: 0.12 mg/m ³	Sk*
Chamis	Danterral	Dawr	Clayerteir	Sk*	C i
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain

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Cyclohexane 110-82-7	TWA: 20 TWA: 700		TWA: 200 ppm TWA: 700 mg/m ³	TWA: 200 ppm TWA: 700 mg/m ³	TWA: 20 TWA: 70		TWA: 200 ppm TWA: 700 mg/m ³
			, and the second	, and the second	STEL: 280 STEL: 8	00 mg/m ³	Ü
Acenaphthylene 208-96-8	-		TWA: 0.2 mg/m ³	-	Sł	(*	-
Chemical name	name		Sweden Switzerland		nd	Ur	ited Kingdom
Cyclohexane 110-82-7			NGV: 200 ppm GV: 700 mg/m³	TWA: 200 p TWA: 700 m STEL: 800 p STEL: 2800 m	g/m³ opm	TW S1	NA: 100 ppm /A: 350 mg/m³ FEL: 300 ppm :L: 1050 mg/m³
Acenaphthylene 208-96-8)		Sk*	-			-

Biological occupational exposure

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

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Acenaphthylene 208-96-8	-	-	-	end of the shift several shifts 150 mg/g Creating BAT (for longerexposures: at end of the shift; several shifts) under the shift several shifts) under the shift several shifts) under the shift several shifts) under the shifts	nine term the after urine ine - erm the after
Chemical name	Hungary		land	Italy MDLPS	Italy AIDII
Acenaphthylene 208-96-8	-	(ur 1-Hydroxy	ol Creatinine ine - pyrene post nift)	-	2.5 µg/L - urine (1-Hydroxypyrene with hydrolysis) - end of shift at end of workweek - urine (3-Hydroxybenzo(a)pyr ene with hydrolysis) - end of shift at end of workweek
Chemical name	Slovenia	S	oain	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	1	-	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) - Workers

Chemical name	Oral	Dermal	Inhalation
Cyclohexane 110-82-7	-	2016 mg/kg bw/day [4] [6]	700 mg/m³ [4] [6] 1400 mg/m³ [4] [7] 700 mg/m³ [5] [6] 1400 mg/m³ [5] [7]

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Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Cyclohexane 110-82-7	59.4 mg/kg bw/day [4] [6]	-	206 mg/m³ [4] [6] 412 mg/m³ [4] [7] 206 mg/m³ [5] [6] 412 mg/m³ [5] [7]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Cyclohexane 110-82-7	0.207 mg/L	0.207 mg/L	0.207 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Cyclohexane 110-82-7	16.68 mg/kg sediment dw	16.68 mg/kg sediment dw	3.24 mg/L	3.38 mg/kg soil dw	-

8.2. Exposure controls

Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing

safety goggles.

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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.

No protective equipment is needed under normal use conditions. If exposure limits are Respiratory protection

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.

Do not allow into any sewer, on the ground or into any body of water. **Environmental exposure controls**

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Liquid Physical state Liquid colourless Colour Odourless Odour

Odour threshold No information available

Remarks • Method **Property** Values

Melting point / freezing point 6.5 °C None known Initial boiling point and boiling range80.7 °C None known **Flammability** No data available None known Flammability Limit in Air None known

Upper flammability or explosive 9,3 Vol% - 326 g/m3

limits

Lower flammability or explosive 1 Vol% - 35 g/m3

limits

Flash point -20 °C None known 260 °C **Autoignition temperature** None known **Decomposition temperature** None known

No data available None known Ha None known pH (as aqueous No data available solution)

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None knownKinematic viscosityNo data availableNone knownDynamic viscosity0.894 mPa s@ 20°CWater solubilityNo data availableNone knownSolubility(ies)No data availableNone knownPartition coefficient3.44

None known

© 20°C

Relative density

None known

Bulk density

No data available

None known Relative vapour density 2.9

Particle characteristics

Particle Size No information available Particle Size No information available

No data available

Distribution

Liquid Density

9.2. Other information

9.2.1. Information with regards to physical hazard classes

No information available

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

Conditions to avoid Heat, flames and sparks.

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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

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.

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

Acute toxicity Based on available data, the classification criteria are not met.

Numerical measures of toxicity

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

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

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

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Skin corrosion/irritation	Classification based on data available for ingredients. Causes skin irritation.		
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.		
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.		
Germ cell mutagenicity	Based on available data, the classification criteria are not met.		
Carcinogenicity	Based on available data, the classification criteria are not met.		
Reproductive toxicity	Based on available data, the classification criteria are not met.		
STOT - single exposure	May cause drowsiness or dizziness.		
STOT - repeated exposure	Based on available data, the classification criteria are not met.		
Aspiration hazard	May be fatal if swallowed and enters airways.		
11.2. Information on other hazards 11.2.1. Endocrine disrupting properties			

Based on available data, the classification criteria are not met. **Endocrine disrupting properties**

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.

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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)	<u>-</u>	EC50: 3.78mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Chemical name	Partition coefficient
Cyclohexane	3.44
Acenaphthylene	4.07

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

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

Chemical name

PBT and vPvB assessment

Chemical name PBT and vPvB assessment

Cyclohexane The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

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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

<u>IATA</u>

14.1 UN number or ID number UN1145

14.2 UN proper shipping name Cyclohexane mixture

14.3 Transport hazard class(es)14.4 Packing group

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)14.4 Packing group

Description UN1145, Cyclohexane mixture, 3, II, (-20°C c.c.), Marine pollutant

14.5 Environmental hazards Yes

14.6 Special precautions for user

Special ProvisionsNoneEmS-No.F-ES-D

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) 314.4 Packing group | |

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

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ADR

14.1 UN number or ID number UN1145

14.2 UN proper shipping name Cyclohexane mixture

14.3 Transport hazard class(es)14.4 Packing group

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)

ADN

14.1 UN number or ID number UN1145

14.2 UN proper shipping name Cyclohexane mixture

14.3 Transport hazard class(es)14.4 Packing group

Description UN1145, Cyclohexane mixture, 3, II, Environmentally Hazardous

14.5 Environmental hazard Yes

14.6 Special precautions for user

Special Provisions None
Classification code F1
Ventilation VE01
Equipment Requirements PP, EX, A

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	RG 84	-
110-82-7		

Germany

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

Chemical Prohibition Ordinance Not applicable

(ChemVerbotsV)

TRGS 905 Not applicable

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Switzerland

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018
Storage of Hazardous Material
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20
Major Accidents Ordinance SR 814.012
Not applicable

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)

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

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

Not applicable

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) 2024/590

Not applicable

EU - Water Framework Directive (2000/60/EC)

Chemical name	EU - Water Framework Directive (2000/60/EC)
Acenaphthylene - 208-96-8	Priority hazardous substance

EU - Environmental Quality Standards (2008/105/EC)

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
Acenaphthylene - 208-96-8	Priority hazardous substance

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International Inventories

TSCA LGC, to the best of its ability, has confirmed that the chemical substances in this product are

listed as "Active" in the EPA (Environmental Protection Agency) "TSCA Inventory Notification (Active-Inactive) Requirements Rule" ("the Final Rule") of Feb 2019, as

amended Feb 2021.'

DSL/NDSL

EINECS/ELINCS

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 Chemicals Inventory

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 any hazard and/or precautionary statements referred to under Sections 2-15

H225 - Highly flammable liquid and vapour

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves, protective clothing, eye protection and face protection

P302 + P352 - IF ON SKIN: Wash with plenty of water and soap

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- P321 Specific treatment (see supplemental first aid instructions on this label)
- P332 + P313 If skin irritation occurs: Get medical advice/attention
- P362 + P364 Take off contaminated clothing and wash it before reuse
- P261 Avoid breathing dust, fume, gas, mist, vapors and spray
- P271 Use only outdoors or in a well-ventilated area
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor if you feel unwell
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed
- P405 Store locked up
- P501 Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable
- P273 Avoid release to the environment
- P391 Collect spillage
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor
- P331 Do NOT induce vomiting
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P233 Keep container tightly closed
- P240 Ground and bond container and receiving equipment
- P241 Use explosion-proof electrical, ventilating and lighting equipment
- P242 Use non-sparking tools
- P243 Take action to prevent static discharges
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
- P403 + P235 Store in a well-ventilated place. Keep cool
- P501 Dispose of contents/container to industrial incineration plant

Legend

_0g0::u	
ACGIH	American Conference of Governmental Industrial Hygienists
AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
	(Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EmS	Emergency Schedule

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ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
EWC	European Waste Codes
GHS	
	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous
1040	Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labour and Social Policy
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation
	(EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
1.001	Taiwan Shemida Substance inventory

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TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
Sen+	Sensitiser
Sk*	Skin designation
**	Hazard Designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
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
Chronic aquatic toxicity	Calculation method
Acute 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) European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

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

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Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
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)
U.S. 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

Revision date

World Health Organization

14-Jan-2025

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

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End of Safety Data Sheet

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