
1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Cyclohexane
Synonyms	Cyclohexane
Grade	ACS, HPLC, Pesticide, Anapremium, Dehydrous
Company	Anaqua Chemicals Supply 1510 Eldridge Parkway, Suite 110-268 Houston, TX 77077, USA
Telephone	(281) 668-0032
Fax	(281) 668-0033

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula	C ₆ H ₁₂
CAS-No.	108-82-7
Index-No.	601-017-00-1
Ec-No.	203-806-2
Concentration	≥ 99 %

3. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids	Category 2
Aspiration hazard	Category 1
Skin irritation	Category 2
Specific target organ toxicity – single exposure	Category 3
Chronic aquatic toxicity	Category 1
Acute aquatic toxicity	Category 1

According to European Directive 67/548/EEC as amended.

Highly flammable. Harmful: may cause lung damage if swallowed. Irritating to skin. Vapours may cause drowsiness and dizziness. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Inhalation	If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician immediately.
Skin Contact	Immediately wash off with soap and plenty of water. Consult a physician.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fighting fire if necessary. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Personal protective Equipment

Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Skin and body protection	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Eye protection	Face shield and safety glasses
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Hand protection	The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid, clear
Color	Colorless
pH	No available information
Melting point	4 – 7 °C
Boiling point	80.7 °C (177.26 °F)
Flash point	-18.0 °C (-0.4 °F) - closed cup
Ignition temperature	260 °C (500 °F)
Lower explosion limit	1 % (V)
Upper explosion limit	9 % (V)
Vapor pressure	102.7 hPa at 20.0 °C (68.0 °F) 225.0 hPa at 37.7 °C (99.86 °F)
Density	0.779 g/ cm ³ at 25 °C (77 °F)
Water solubility	No available information
Partition coefficient: n-octanol/ water	log Pow: 3.44
Molecular weight	84.16
Decomposition temperature	No available information
Viscosity	No available information
Explosive properties	No available information
Oxidizing properties	No available information

10. STABILITY AND REACTIVITY

Storage stability	Stable under recommended storage conditions.
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Strong oxidizing agents
Hazardous decomposition products	Carbon oxides formed under fire conditions.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	LD50 Oral 12,705 mg/kg (Rat) LC50 Inhalation 13,900 mg/m ³ (Rat) 4 h LD50 Dermal > 2,000 mg/kg (Rabbit)
Skin irritation	No skin irritation (Rabbit)
Eye irritation	Mild eye irritation (Rabbit)
Sensitization	No available information
Germ cell mutagenicity	No available information
Specific target organ toxicity – single exposure (GHS)	May cause damage to organs.
Specific target organ toxicity – repeated exposure (GHS)	No available information
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No available information
Aspiration hazard	May be fatal if swallowed and enters airways.
Potential health effects	Inhalation Harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness. Ingestion Harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. Skin Harmful if absorbed through skin. May cause skin irritation. Eyes Causes eye irritation.
Signs and Symptoms of Exposure	Central nervous system depression, Drowsiness, Irritability, Dizziness, Gastrointestinal disturbance, Lung irritation, chest pain, pulmonary edema
Additional Information	RTECS: GU6300000

12. ECOLOGICAL INFORMATION

Ecotoxicity	
Persistence and degradability	No available information
Toxicity to fish	LC50 34.7 mg/l (Lepomis macrochirus (Bluegill)) 96 h LC50 32-93 mg/l (Pimephales promelas (fathead minnow)) 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 3.78 mg/l (Daphnia magna (Water flea)) 48 h
Bioaccumulative potential	Not readily biodegradable
Results of PBT and vPvB assessment	No available information
Mobility	No available information
Other adverse effects	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

IATA

UN-Number: 1145 Class: 3 Packing group: II
Proper shipping name: Cyclohexane

IMDG

UN-Number: 1145 Class: 3 Packing group: II
Proper shipping name: Cyclohexane
EMS-No. F-E, S-E

DOT (US)

UN-Number: 1145 Class: 3 Packing group: II
Proper shipping name: Cyclohexane
Marine pollution: No

15. REGULATORY INFORMATION

Hazard statements

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

Precautionary statements

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P273: Avoid release to the environment.
P301 + P310: Immediately call a POISON CENTER or doctor/physician IF SWALLOWED.
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to an approved waste disposal plant.

GHS-Labeling

Pictogram



Signal word *Danger*

Labeling according to EC Directive

Symbol(s): F: Highly flammable Xn: Harmful N: Dangerous for the environment

R-phrase(s): 11-38-50/53-65-67

Highly flammable. Irritating to skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.

S-phrase(s): 9-16-25-33-60-61-62

Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Avoid contact with eyes. Take precautionary measures against static discharges. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/ Safety data sheets. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Skin Irrit.: Skin irritation

STOT SE: Specific target organ toxicity - single exposure

16. OTHER INFORMATION

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