

Material Safety Data Sheet

Chemistry beyond chemicals



SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Cyclohexane 99.7% for HPLC & Spectroscopy
Cat No.	HP0076
CAS-No.	110-82-7
M.W.	84.16
EC-No.	203-806-2
Company	High Purity Laboratory Chemicals Pvt. Ltd.
Address	Plot No. 1902, Fansa Road, G.I.D.C., Sarigam - 396 155, DIST. Valsad, Gujarat (INDIA)
Email	customer@hplcindia.com

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	110-82-7
Percent	99.7%
Substance/Mixture	Substance
Synonym	-
Chemical Formula	$\text{CH}_2 \cdot (\text{CH}_2)_4 \cdot \text{CH}_2$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

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

GHS LABEL ELEMENTS



Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

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 statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P273	Avoid release to the environment.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P331	Do NOT induce vomiting.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	no data available
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear colorless liquid.
Odour	Sweet
Odour Threshold	no data available
pH	no data available
Melting/freezing point	6-7° C
Boiling point/range	80-81° C
Flash point	-18 °C
Evaporation rate	no data available
Vapour pressure	124 hPa at 24 °C
Vapour density	no data available
Relative density	0.777-0.779 g
Water solubility	0.05 g/l at 20 °C
LogPow	3.44
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Vapours may form explosive mixture with air.
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Incompatibilities	rubber, various plastics
Hazardous decomposition products	no data available

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Conditions to avoid

Warming.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity: LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity: LC50 Rat: > 33.88 mg/l; 4 h

Acute dermal toxicity: LD50 Rabbit: > 2,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Rabbit Result: No eye irritation

Respiratory/skin sensitization

Buehler Test Guinea pig Result: Does not cause skin sensitisation.

Germ cell mutagenicity

Genotoxicity in vivo: Chromosome aberration test Rat male and female inhalation (vapour)

Bone marrow Result: negative

Genotoxicity in vitro: Ames test Salmonella typhimurium Result: negative

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 data available

Specific target organ toxicity

Single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity

Repeated exposure: no data available

Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.

RTECS

Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish:

flow-through test LC50 Pimephales promelas : 4.53 mg/l; 96 h

Toxicity to daphnia and

other aquatic invertebrates:

static test EC50 Daphnia magna (Water flea): 0.9 mg/l; 48 h

Persistence/degradation

Biodegradability 77 %; 28 d; Readily biodegradable

Environmental

no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.

There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number

1145

Proper shipping name

CYCLOHEXANE

Hazard class

3

Packaging group

II

Marine pollutant

Yes

SECTION 15: REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.