



Qualikems

Qualikems Lifesciences Pvt. Ltd.

(Formerly known as Qualikems fine chem Pvt Ltd)

Works : Plot No. 68-69,G.I.D.C Industrial Estate,Nandesari,Vadodara-391340 (Gujarat)

Telefax : 91-265-2841531,2841532,2841534,2841535.

Sales Office : 5531,Basti Harphool singh Sadar Thana Road, Delhi-110006

Tel : +91-11-23618475/23618476,Fax:+91-11-23678476

Email: salesindia@qualikems.com ,www.qualikems.com.

Material Safety Data Sheet Cyclohexane

Section 1 - Chemical Product and Company Identification

MSDS Name: Cyclohexane

Synonyms: Benzene hexahydride; Hexahydrobenzene; Hexamethylene.

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
110-82-7	Cyclohexane	>99	203-806-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless liquid. Flash Point: -20 deg C.

Danger! Extremely flammable liquid and vapor. Vapor may cause flash fire. Breathing vapors may cause drowsiness and dizziness. Aspiration hazard if swallowed. Can enter lungs and cause damage. May cause eye and skin irritation.

Target Organs: Central nervous system.

Potential Health Effects

Eye: May cause mild eye irritation. Vapors may cause eye irritation.

Skin: May cause irritation with burning pain, itching and redness. Not expected to cause an allergic skin reaction. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts.

Ingestion: Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. May cause central nervous system depression.

Inhalation: May cause respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness.

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Liquid will float and may reignite on the surface of water. Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media: Water may be ineffective. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained. Do NOT use straight streams of water. For large fires, use water spray, fog or regular foam. For small fires, use dry chemical, carbon dioxide, water spray or regular foam. Cool containers with flooding quantities of water until well after fire is out.

Flash Point: -20 deg C (-4.00 deg F)

Autoignition Temperature: 245 deg C (473.00 deg F)

Explosion Limits, Lower: 1.3

Upper: 8.0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or

vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless

Odor: sweetish odor - chloroform-like

pH: Not available.

Vapor Pressure: 96.9 mm Hg @ 25 deg C

Vapor Density: 2.90 (air=1)

Evaporation Rate:6.1 (Butyl acetate=1)

Viscosity: 1.02 cP @ 17 deg C

Boiling Point: 80.7 deg C

Freezing/Melting Point:6.5 deg C

Decomposition Temperature:Not available.

Solubility: Practically insoluble in water.

Specific Gravity/Density:0.77 (Water=1)

Molecular Formula:C₆H₁₂

Molecular Weight:84.15

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Ignition sources, excess heat, confined spaces.

Incompatibilities with Other Materials: Strong oxidizing agents, nitrogen dioxide.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 110-82-7: GU6300000

LD50/LC50:

CAS# 110-82-7:

Draize test, rabbit, skin: 1548 mg/2D (Intermittent);

Inhalation, mouse: LC50 = 70000 mg/m³/2H;

Oral, mouse: LD50 = 813 mg/kg;

Oral, rat: LD50 = 12705 mg/kg;

Carcinogenicity:

CAS# 110-82-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.**Teratogenicity:** No information available.**Reproductive Effects:** No information available.**Mutagenicity:** No data available.**Neurotoxicity:** No information available.**Other Studies:**

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50 = 117.0 mg/L; 96 Hr.; Static conditions
Fish: Bluegill/Sunfish: LC50 = 34.72 mg/L; 96 Hr.; 25 degrees C
Water flea Daphnia: EC50 = 400.00 mg/L; 48 Hr.; Unspecified
Bacteria: Phytobacterium phosphoreum: EC50 = 227.00 mg/L; 5, 30 minutes; Microtox test No data available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14 - Transport Information

	IATA	
Shipping Name:	CYCLOHEXANE	
Hazard Class:	3	
UN Number:	UN1145	
Packing Group:	II	

Section 15 - Regulatory Information

Hazard Symbols:

XN F N

Risk Phrases:

R 11 Highly flammable.

R 38 Irritating to skin.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 33 Take precautionary measures against static discharges.

S 9 Keep container in a well-ventilated place.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

S 62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Section 16 - Additional Information**MSDS Creation Date:** 5/08/2000**Revision #3 Date:** 10/03/2005**Revision #4 Date:** 09/03/2010**Revision #5 Date:** 08/03/2015**Revision #6 Date:** 07/03/2020**Revision #7 Date:** 06/03/2025

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