裕丰化工
YUFENG CHEM

辽宁裕丰化工有限公司

LIAONING YUFENG CHEMICAL CO.,LTD

Name: **Cyclohexane Material Safety Data Sheet**
Synonym: Benzene hexahydride; Hexahydrobenzene; Hexamethylene
CAS: 110-82-7

Section 1 - Chemical Product

MSDS Name: Cyclohexane
Synonym: Benzene hexahydride; Hexahydrobenzene; Hexamethylene.

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
110-82-7	Cyclohexane	>99.9	203-806-2

Hazard Symbols: XN F N
Risk Phrases: 11 38 50/53 65 67

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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.

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.

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:

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.

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.

Exposure Limits CAS# 110-82-7: United Kingdom, WEL - TWA: 100 ppm TWA; 350 mg/m3 TWA United Kingdom, WEL - STEL: 300 ppm STEL; 1050 mg/m3 STEL United States OSHA: 300 ppm TWA; 1050 mg/m3 TWA Belgium - TWA: 300 ppm VLE; 1045 mg/m3 VLE France - VME: 300 ppm VME; 1050 mg/m3 VME France - VLE: 375 ppm VLE; 1300 mg/m3 VLE Germany: 200 ppm TWA; 700 mg/m3 TWA Japan: 150 ppm OEL; 520 mg/m3 OEL Malaysia: 300 ppm TWA; 1030 mg/m3 TWA Netherlands: 250 ppm MAC; 875 mg/m3 MAC Russia: 80 mg/m3 TWA Spain: 300 ppm VLA-ED; 1050 mg/m3 VLA-ED Spain: 600 ppm VLA-EC; 2100 mg/m3 VLA-EC

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.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: colorless
Odor: sweetish odor - chloroform-like
pH: Not available.
Vapor Pressure: 96.9 mm Hg @ 25 deg C
Viscosity: 1.02 cP @ 17 deg C
Boiling Point: 80.7 deg C
Freezing/Melting Point: 6.5 deg C
Autoignition Temperature: 245 deg C (473.00 deg F)
Flash Point: -20 deg C (-4.00 deg F)
Explosion Limits, lower: 1.3
Explosion Limits, upper: 8.0
Decomposition Temperature: Not available.
Solubility in water: 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:
Cyclohexane - Not listed by ACGIH, IARC, or NTP.
Other:
See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:
Fish: Fathead Minnow: LC50 = 117.0 mg/L; 96 Hr.; Static conditionsFish: Bluegill/Sunfish: LC50 = 34.72 mg/L; 96 Hr.; 25 degrees CWater flea Daphnia: EC50 = 400.00 mg/L; 48 Hr.; UnspecifiedBacteria: Phytobacterium phosphoreum: EC50 = 227.00 mg/L; 5, 30 minutes; Microtox test

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA
Shipping Name: CYCLOHEXANE
Hazard Class: 3
UN Number: 1145
Packing Group: II
IMO
Shipping Name: CYCLOHEXANE
Hazard Class: 3.1
UN Number: 1145
Packing Group: II
RID/ADR
Shipping Name: CYCLOHEXANE
Hazard Class: 3
UN Number: 1145
Packing group: II
USA RQ: CAS# 110-82-7: 1000 lb final RQ; 454 kg final RQ

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

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 9 Keep container in a well-ventilated place.

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

S 33 Take precautionary measures against static discharges.

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.

WGK (Water Danger/Protection)

CAS# 110-82-7: 1

Canada

CAS# 110-82-7 is listed on Canada's DSL List.

CAS# 110-82-7 is listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 110-82-7 is listed on the TSCA inventory.

Section 16 OTHER INFORMATION

Reference date:

China petroleum and chemical corporation security ministry of supervision(Petroleum chemical poison manual)

Solvent device technology regulations/ Post operation procedures

Fill-in Date：2017.8.31

Fill in DEPT.：Liaoning liaoyang yu feng chemical co., LTD. Solvent device

Data audit unit：office

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