



Centre Anti-Poison pour le Québec: (800) 463-5060

Tél. (Qc): (418) 660-8666 / 800-890-8666


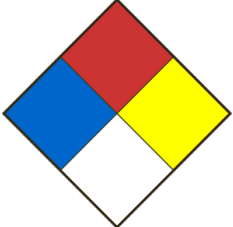
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier CYCLOHEXANE		Product Use Laboratory use	
Chemical formula C ₆ H ₁₂		Product code CR-0176 ; CP-0164; CH-0105	Molar weight 84,16
Chemical name / Commercial name / Synonymous HEXAHYDROBENZÈNE, HEXAMÉTHYLÈNE, HEXANAPHTÈNE, BENZENE HEXAHYDRIDE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 2/4/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	<p>Flammable liquids category 2</p> <p>Skin corrosion/irritation - Skin irritation category 2</p> <p>Aspiration hazard category 1</p> <p>Specific target organ toxicity - Single exposure category 3</p>
Signal Word	<p>DANGER</p>
Hazards statements (H)	<p>H225 Highly flammable liquid and vapour.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H315 Causes skin irritation.</p> <p>H336 May cause drowsiness or dizziness.</p>
Precautionary statements (P)	<p>P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.</p> <p>P233 Keep container tightly closed.</p> <p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical/ventilating/lighting equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P261 Avoid breathing dust / fume / gas / mist / vapours / spray.</p> <p>P264 Wash the areas of the body that have been in contact with the product after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P321 Specific treatment (see section 4 of the SDS and on this label).</p> <p>P331 Do NOT induce vomiting.</p> <p>P332 + P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P403 + P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p>
PICTOGRAMS	
Other dangers	<p>NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)</p>
	<p>Health 1</p> <p>Fire 4</p> <p>Reactivity 0</p> <p>Special danger</p>

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Cyclohexane	110-82-7	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	Do NOT induce vomiting. If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	Yes
Ignition conditions	Strong oxidizing agents, heat, sparks and open flame.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Further information Use water spray to cool unopened containers.
Unsuitable extinguishing media	Do not use a concentrated stream of water that could spread fire.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.
Special fire and explosion hazards	Steam can travel a great distance and ignite on sources of ignition such as heaters, electrical appliances, cigarettes, sparks, etc. Containers exposed to fire may explode. Vapors may form flammable or explosive mixtures with air. Hot mixing of cyclohexane and diazotized tetroxide may cause an explosion. Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personal precautions, protective equipment	Evacuate personnel to safe areas. Eliminate all sources of inflammation. Avoid the accumulation of charges electrostatic. Avoid breathing vapours, mist or gas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Use anti-spark tools and anti-explosion equipment. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Close all opened containers carefully and store vertically to avoid any flow. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks). Protect from the sun's rays.
Methods of handling	Bottle in the glass only. Avoid contact with the skin, eyes and clothes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Ensure good ventilation.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Cyclohexane	110-82-7	TWA	100.000000 ppm 344.000000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	100.000000 ppm	Canada. British Columbia OEL
		TWAEV	300.000000 ppm 1,030.000000 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	100.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich.
Ventilation	Use fan.
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Incolore.
Odour	Doux..
Odour threshold	0.417ppm
pH	Données non disponibles.
Melting point / Freezing point	6.5°C
Initial boiling point	80.7°C
Boiling range	Data not available
Flash point	-18.3°C
Evaporation rate	6.1%
Flammability	Yes
Lower flammable / Explosive limit	1%
Upper flammable / Explosive limit	9%
Vapour pressure	77.0 mmHg @ 20°C.
Vapour density	0.770.
Relative density	0.779g/cm ³
Solubility	Insoluble dans l'eau. Miscible avec l'éthanol, l'acétone, le benzène et l'éther.
Partition coefficient water/n-octanol	log Pow : 3.44.
Auto-ignition temperature	260°C
Decomposition temperature	Data not available
Viscosity	0.94 mPa.s à 20°C.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions. Vapours may form explosive mixture with air.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Heat, flames and sparks.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), diazotized tetroxide, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

CYCLOHEXANE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, chest pain, cough, dyspnea, headache, dizziness, drowsiness, confusion and may lead to unconsciousness.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. 216/5000 Gastrointestinal disorders, liver and kidney damage, cramps, diarrhea, headache, dizziness, drowsiness, nausea and vomiting, convulsions, stupor, vascular collapse, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, narcotic effects, chest pain, liver and kidney damage, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, drowsiness, tiredness, nausea and vomiting. Central nervous system depression, digestive disorders, pulmonary irritation, chest pain, pulmonary edema.
DL50 (specify species and route of entry)	LD50 Oral - Rat - >5000 mg/kg. LD50 Dermal - Rabbit - > 2000 mg/kg
CL50 (specify species and route of entry)	CL50 inhalation - Rat 34000 mg/L - 4 h

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	LC50 - Pimephales promelas (fathead minnow) - 4.53 mg/L - 96 h LC50 - Lepomis macrochirus - 24.99 - 44.69 mg/L - 96 h - Static. EC50 - Daphnia magna (Water flea) - 0.9 mg/L - 48 h - Immobilization EC50 - Pseudokirchneriella subcapitata (green algae) - 3.4 mg/L - 72 h
Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its volatility.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1145
UN Proper shipping name	CYCLOHEXANE
Transport hazard class(es)	3 Flammable liquids
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 2 Skin corrosion/irritation - Skin irritation category 2 Aspiration hazard category 1 Specific target organ toxicity - Single exposure category 3
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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