



## MATERIAL SAFETY DATA SHEET

### CYCLOPENTANE

#### SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:  
Cyclopentane, 99%

Catalog Numbers: 11148-0000, 11148-0010, 11148-0025

Synonyms:  
Un Listed

Company Information:  
LEONID CHEMICALS  
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb  
Ashokpuram School Road  
Bangalore-560 022, Karnataka, INDIA  
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

#### SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	287-92-3
Chemical Name	:	Cyclopentane
%	:	99%
EINECS#	:	206-016-6
Hazard Symbols	:	F
Risk Phrases	:	11

#### SECTION 3- HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

Highly flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### Potential Health Effects

##### Eye:

May cause eye irritation.

##### Skin:

May cause skin irritation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.

##### Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated. May cause central nervous system depression.

##### Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause drowsiness, unconsciousness, and central nervous system depression.

Chronic:  
Not available.

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#### SECTION 4- FIRST AID MEASURES

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Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do not induce vomiting. Get medical aid. Wash mouth out with water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Un Listed

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#### SECTION 5- FIRE FIGHTING MEASURES

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General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. Flammable liquid and vapor.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective.

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#### SECTION 6- ACCIDENTAL RELEASE MEASURES

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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. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

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#### SECTION 7 - HANDLING and STORAGE

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Handling:

Use only in a well-ventilated area. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Take precautionary measures against static discharges.

Storage:

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

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## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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### Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

### Personal Protective Equipment

#### Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard En166.

#### Skin:

Wear appropriate protective 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. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Physical State	:	Clear liquid
Color	:	colorless
Odor	:	petroleum-like
pH	:	Not available.
Vapor Pressure	:	335 mbar @ 20 deg C
Viscosity	:	0.44 mPas 20 deg C
Boiling Point	:	50 deg C @ 760.00mm Hg
Freezing/Melting Point	:	-94 deg C
Autoignition Temperature	:	380 deg C ( 716.00 deg F)
Flash Point	:	-37 deg C ( -34.60 deg F)
Explosion Limits, lower	:	1.50 vol %
Explosion Limits, upper	:	8.70 vol %
Decomposition Temperature	:	Un Listed
Solubility in water	:	soluble in acetone, benzene, alcohol, et
Specific Gravity/Density	:	.7510g/cm3
Molecular Formula	:	C5H10
Molecular Weight	:	70.13

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## SECTION 10 - STABILITY AND REACTIVITY

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### Chemical Stability:

Stable under normal temperatures and pressures.

### Conditions to Avoid:

Incompatible materials, ignition sources.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong bases.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Polymerization:

Will not occur.

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## SECTION 11 - TOXICOLOGICAL INFORMATION

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RTECS#:

CAS# 287-92-3: Gy2390000

LD50/LC50:

CAS# 287-92-3: Inhalation, mouse: LC50 = 72 gm/m<sup>3</sup>; Inhalation, rat:

LC50 = 106 gm/m<sup>3</sup>; Oral, mouse: LD50 = 12800 mg/kg; Oral, rat: LD50 = 11400 mg/kg.

Carcinogenicity:

Cyclopentane -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

Other:

Un Listed

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## SECTION 12 - ECOLOGICAL INFORMATION

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Un Listed

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## SECTION 13 - DISPOSAL CONSIDERATIONS

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

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## SECTION 14 - TRANSPORT INFORMATION

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IATA

Shipping Name : CYCLOPENTANE

Hazard Class : 3

UN Number : 1146

Packing Group : II

IMO

Shipping Name : CYCLOPENTANE

Hazard Class : 3

UN Number : 1146

Packing Group : II

ID/ADR

Shipping Name : CYCLOPENTANE

Hazard Class : 3

UN Number : 1146

Packing Group : II

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## SECTION 15 - REGULATORY INFORMATION

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European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

F

Risk Phrases:

R 11 Highly flammable.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

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

S 29 Do not empty into drains.

S 33 Take precautionary measures against static discharges.

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

WGK (Water Danger/Protection)

CAS# 287-92-3: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 287-92-3 is listed on Canada's DSL List.

CAS# 287-92-3 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 287-92-3: OEL-AUSTRALIA:TWA 600 ppm (1720 mg/m<sup>3</sup>)

OEL-BELGIUM:TWA 600 ppm (1720 mg/m<sup>3</sup>)

OEL-DENMARK:TWA 300 ppm (850 mg/m<sup>3</sup>)

OEL-FRANCE:TWA 600 ppm (1720 mg/m<sup>3</sup>)

OEL-THE NETHERLANDS:TWA 600 ppm (1720 mg/m<sup>3</sup>) JAN9

OEL-SWITZERLAND:TWA 600 ppm (1720 mg/m<sup>3</sup>)

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 287-92-3 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.