



MATERIAL SAFETY DATA SHEET

DICYCLOHEXYLAMINE

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:
DICYCLOHEXYLAMINE

Synonyms:

Cyclohexanamine, N-cyclohexyl-; dicyclohexylamine 99%, dodecahydrodiphenylamine

CAS No. : 101-83-7
Molecular Weight : 181.32
Chemical Formula : C₁₂H₂₃N
Product Codes : H391

Company Information:

LEONID CHEMICALS
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb
Ashokpuram School Road
Bangalore-560 022, Karnataka, INDIA
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SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient : Dicyclohexylamine
CAS No. : 101-83-7
% : 100 %
Hazardous : Yes

SECTION 3- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. HARMFUL IF SWALLOWED OR INHALED. MAY BE ABSORBED THROUGH SKIN.

J.T. Baker SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating : 2 - Moderate
Flammability Rating : 1 - Slight
Reactivity Rating : 1 - Slight
Contact Rating : 3 - Severe (Corrosive)
Lab Protective Equip : GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
Storage Color Code : White (Corrosive)

Potential Health Effects:

Information on the human health effects from exposure to this substance is limited.

Inhalation:

Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Symptoms may include irritation of the nose and throat, and labored breathing.

May cause lung edema, a medical emergency.

Ingestion:

Toxic. May cause burns in esophagus and stomach, coughing, nausea, and vomiting.

Skin Contact:

Corrosive. May cause severe irritation, redness, pain, and skin burns. Irritant and possible sensitizer.

Eye Contact:

Causes irritation, redness, and pain.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

SECTION 4- FIRST AID MEASURES

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician

Ingestion:

DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SECTION 5- FIRE FIGHTING MEASURES

Fire:

Flash point : > 99C (> 210F) OC

Fire Hazard when exposed to heat or flame.

Explosion:

Above the flash point, explosive vapor-air mixtures may be formed.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 6- ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g. , vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

SECTION 7 - HANDLING and STORAGE

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Store above 20C (68F) to prevent freezing.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Airborne Exposure Limits:
None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Clear, colorless liquid.
Odor	:	Fishy/amine odor.
Solubility	:	Sparingly soluble in water.
Specific Gravity	:	0.910
pH	:	Strong base
% Volatiles by volume @ 21C (70F)	:	100
Boiling Point	:	256C (493F)
Melting Point	:	20C (68F)

Vapor Density (Air=1) : 6.27
Vapor Pressure (mm Hg) : No information found.
Evaporation Rate (BuAc=1) : No information found.

SECTION 10 - STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage. Strong base.

Hazardous Decomposition Products

Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Acids, acid chlorides, acid anhydrides, oxidizing agents, chloroformates.

Conditions to Avoid:

Heat, cold and incompatibles.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological Data:

Oral rat Ld50 : 373 mg/kg.

Investigated as a carcinogen and mutagen.

Irritation eye rabbit : 750 ug/24H severe.

Skin rabbit : 2mg/24H severe.

Carcinogenicity:

There is limited evidence that this material causes cancer in laboratory animals. There is inadequate evidence that this material causes cancer in humans.

NTP Carcinogen

Ingredient : Dicyclohexylamine (101-83-7)

Known : No

Anticipated : No

IARC Category : 3

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

SECTION 13 - DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal

regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORT INFORMATION

Domestic (Land, D.O.T.)

Proper Shipping Name : DICYCLOHEXYLAMINE
Hazard Class : 8
UN/NA : Un2565
Packing Group : III
Information reported for product/size : 3KG

International (Water, I.M.O.)

Proper Shipping Name : DICYCLOHEXYLAMINE
Hazard Class : 8
UN/NA : Un2565
Packing Group : III
Information reported for product/size : 3KG

SECTION 15 - REGULATORY INFORMATION

Chemical Inventory Status - Part 1

Ingredient : Dicyclohexylamine (101-83-7)
TSCA : Yes
EC : Yes
Japan : Yes
Australia : Yes

Chemical Inventory Status - Part 2

Ingredient : Dicyclohexylamine (101-83-7)
Canada
Korea : Yes
DSL : Yes
NDSL : No
Phil : Yes

Federal, State & International Regulations - Part 1

Ingredient : Dicyclohexylamine (101-83-7)
SARA 302
RQ : No
TPQ : No

SARA 313

List : No
Chemical Catg: No

Federal, State & International Regulations - Part 2

Ingredient : Dicyclohexylamine (101-83-7)

CERCLA : No
RCRA
261.33 : No
TSCA

8(d) : No

Chemical Weapons Convention : No TSCA 12(b): No CDTA: No
SARA 311/312 : Acute: Yes Chronic: No Fire: No Pressure: No
Reactivity : No (Pure / Liquid)

Australian Hazchem Code : 3X
Poison Schedule : None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

SECTION 16 - OTHER INFORMATION

NFPA Ratings: Health: 3 Flammability: 1 Reactivity: 0

Label Hazard Warning:

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. HARMFUL IF SWALLOWED OR INHALED. MAY BE ABSORBED THROUGH SKIN.

Label Precautions:

Do not breathe vapor.
Do not get in eyes, on skin, or on clothing.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.

Label First Aid:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of skin contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. In all cases call a physician immediately.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.

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