



MATERIAL SAFETY DATA SHEET

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Imidazole

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Imidazole

Catalog Numbers:

1009

Synonyms:

Glyoxaline

Company Identification (Europe):

LEONID CHEMICALS

62/A-2 2nd Stage, Industrial Suburb

Yeshwanthpur, Bangalore -22, INDIA

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SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	: 288-32-4
Chemical Name	: Imidazole
%	: >98,5%
EINECS#	: 206-019-2
Hazard Symbols	: C
Risk Phrases	: 22 34

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Harmful if swallowed. Causes burns. Possible risk of harm to the unborn child.

Potential Health Effects

Eye:

Causes eye burns.

Skin:

Causes skin burns. May be absorbed through the skin.

Ingestion:

Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation:

May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract.

Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Chronic:

No information found.



SECTION 4 - FIRST AID MEASURES

Eyes:

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

Skin:

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

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation:

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

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. Dusts at sufficient concentrations can form explosive mixtures with air.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7 - HANDLING and STORAGE

Handling:

Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Use only in a chemical fume hood.

Storage:

Store in a cool, dry place. Store in a tightly closed container. Corrosives 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 ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Flakes

Color: white to off-white

Odor: amine-like

pH: 10.5 (6.7% aq.sol.)

Vapor Pressure: 0.003mbar @20 deg C

Viscosity: Not available.

Boiling Point: 255 - 256 deg C @760mmHg

Freezing/Melting Point: 86 - 90 deg C

Autoignition Temperature: 480 deg C (896.00 deg F)

Flash Point: 145 deg C (293.00 deg F)

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water: 633 g/l water (20°C)

Specific Gravity/Density:

Molecular Formula: C3H4N2

Molecular Weight: 68.08

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, dust generation.

Incompatibilities with Other Materials:

Strong oxidizing agents, acids, acid chlorides.
Hazardous Decomposition Products:
Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide,
ammonia.
Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 288-32-4: NI3325000

LD50/LC50:

CAS# 288-32-4: Oral, mouse: LD50 = 880 mg/kg; Oral, rat: LD50 = 220 mg/kg.

Carcinogenicity:

Imidazole -

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

Other:

See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Bacteria: *Phytobacterium phosphoreum*: 231 ppm; 0.5H; microtox test
Daphnia: 341.5 mg/l; 48H; EC/LC50 acute
Algae: 130 mg/l; 72H; EC/LC50
Bacteria: 1200 mg/l; 17H; EC/LC50
log POW: -0.02

Other

Biodegradable. Avoid entering into waters or underground water.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

IATA

Shipping Name: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.*

Hazard Class: 8

UN Number: 3263

Packing Group: III

IMO

Shipping Name: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.

Hazard Class: 8

UN Number: 3263

Packing Group: III

RID/ADR

Shipping Name: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.

Hazard Class: 8

UN Number: 3263

Packing group: III

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

R 63 Possible risk of harm to the unborn child.

Safety Phrases:

S 22 Do not breathe dust.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 288-32-4: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 288-32-4 is listed on Canada's DSL List.

CAS# 288-32-4 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 288-32-4 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

MSDS Creation Date: 7/16/1996 Revision #2 Date: 2/06/2004

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.