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MATERIAL SAFETY DATA SHEET

1H-Benzotriazole

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:
1H-Benzotriazole .

Catalog Numbers:
10567-0000, 10567-1000, 10567-5000, 18388-0000, 18388-1000, 18388-5000

Synonyms:
1,2,3-Benzotriazole

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 #	:	95-14-7
Chemical Name	:	1H-Benzotriazole
%	:	>98%
EINECS#	:	202-394-1
Hazard Symbols	:	XN F
Risk Phrases	:	11 20/21/22 36/37/38 5

SECTION 3- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin. Heating may cause an explosion.

Potential Health Effects

Eye:

Causes eye irritation. May cause redness, pain, blurred vision and possible eye damage.

Skin:

Causes skin irritation. Harmful if absorbed through the skin. Causes redness and pain.



Ingestion:

Harmful if swallowed. May cause irritation of the digestive tract. May cause central nervous system effects. May cause headache, nausea, fatigue, and dizziness.

Inhalation:

Harmful if inhaled. Causes respiratory tract irritation. May cause headache. Chronic:

Chronic:

No information available.

SECTION 4 - FIRST AID MEASURES

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:

Get medical aid immediately. Wash mouth out with water.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Dust can be an explosion hazard when exposed to heat or flame. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Flammable solid. May decompose explosively when heated or involved in a fire. Containers may explode if exposed to fire. May explode on distillation.

Extinguishing Media:

Use water spray to cool fire-exposed containers. 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. Do not flush into a sewer. Remove all sources of ignition. Use a spark-proof tool.

SECTION 7 - HANDLING AND STORAGE

Handling:

Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage:

Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. 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 explosion-proof ventilation to keep airborne levels to acceptable levels.

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 yellow-beige
Odor	:	odorless
PH	:	5 (25 g/l aq.sol.)
Vapor Pressure	:	0.04mmHg @20 deg C
Viscosity	:	No information available.
Boiling Point	:	204 deg C @15mmHg
Freezing/Melting Point	:	95 - 99 deg C
Autoignition Temperature	:	210 deg C (410.00 deg F)
Flash Point	:	170 deg C (338.00 deg F)
Explosion Limits, lower	:	2.4 Vol %
Explosion Limits, upper	:	No information available.
Decomposition Temperature	:	>160 deg C
Solubility in water	:	25 g/l (20°C)
Specific Gravity/Density	:	No information available.
Molecular Formula	:	C ₆ H ₅ N ₃
Molecular Weight	:	119.13

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Heating may cause an explosion. Dusts may form an explosion hazard.

Conditions to Avoid:

Incompatible materials, ignition sources, heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, heavy metals.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization:

Has not been reported

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 95-14-7: Dm1225000

LD50/LC50:

CAS# 95-14-7: Inhalation, rat: LC50 = 1910 mg/m³/3H; Oral, mouse: LD50 = 615 mg/kg; Oral, rat: LD50 = 560 mg/kg; Skin, rat: LD50 = >1 gm/kg. Not available.

Carcinogenicity:

1H-Benzotriazole - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

Other

Avoid entering into waters or underground water. Do not empty into drains. Non-biodegradable.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

IATA

Shipping Name : FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*
Hazard Class : 4.1
UN Number : 2926
Packing Group : II

IMO

Shipping Name : FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*
Hazard Class : 4.1
UN Number : 2926
Packing Group : II

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RID/ADR

Shipping Name : FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*
Hazard Class : 4.1
UN Number : 2926
Packing Group : II

SECTION 15 - REGULATORY INFORMATION

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:
XN F

Risk Phrases:
R 11 Highly flammable. R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R 36/37/38 Irritating to eyes, respiratory system and skin. R 5 Heating may cause an explosion.

Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 28A After contact with skin, wash immediately with plenty of water. 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# 95-14-7: 2

United Kingdom Occupational Exposure Limits
No information available.

United Kingdom Maximum Exposure Limits
No information available.

Canada
CAS# 95-14-7 is listed on Canada's DSL List.
CAS# 95-14-7 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits
CAS# 95-14-7: OEL-RUSSIA:STEL 5 mg/m³;Skin

US FEDERAL
TSCA
CAS# 95-14-7 is listed on the TSCA inventory. rous form is on the inventory (40CFR720.3(u)(2)).

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.

