



MATERIAL SAFETY DATA SHEET

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Thiosemicarbazide, 99%

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Thiosemicarbazide, 99%

Catalog Numbers:

T087

Synonyms:

Hydrazinecarbothioamide

Company Identification:

LEONID CHEMICALS

62/A-2 2nd Stage, Industrial Suburb

Yeshwanthpur, Bangalore -22, INDIA

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SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	79-19-6
Chemical Name	:	Thiosemicarbazide
%	:	99%
EINECS#	:	201-184-7
Hazard Symbols	:	T+
Risk Phrases	:	28

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Very toxic if swallowed.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion:

May be fatal if swallowed. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. May be harmful if inhaled.

Chronic:

Not 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:

SPEED IS ESSENTIAL. A DOCTOR MUST BE NOTIFIED AT ONCE. 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.

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. Avoid generating dusty conditions.

SECTION 7 - HANDLING and STORAGE

Handling:

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:

Store in a cool, dry place. Store in a tightly closed container. Poison room locked.

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: Powder
Color: white to beige
Odor: odorless
pH: 5-7 (1.3% aq. sol.)
Vapor Pressure: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 175 - 180 deg C
Autoignition Temperature: Not available.
Flash Point: Not available.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: >178 deg C
Solubility in water: Soluble.
Specific Gravity/Density:
Molecular Formula: CH₅N₃S
Molecular Weight: 91.13

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:
Not available.
Conditions to Avoid:
Incompatible materials, temperatures above 150° C.
Incompatibilities with Other Materials:
Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products:
Nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide.
Hazardous Polymerization: Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 79-19-6: VT4200000

LD50/LC50:

CAS# 79-19-6: Oral, rabbit: LD50 = 13 mg/kg; Oral, rat: LD50 = 9160 ug/kg; Skin, rabbit: LD50 = 2200 mg/kg.

Carcinogenicity:

Thiosemicarbazide -

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

Other:

See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

Other

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: TOXIC SOLID, ORGANIC, N.O.S.*

Hazard Class: 6.1

UN Number: 2811

Packing Group: II

IMO

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: 2811

Packing Group: II

RID/ADR

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: 2811

Packing group: II

USA RQ: CAS# 79-19-6: 100 lb final RQ; 45.4 kg final RQ

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T+

Risk Phrases:

R 28 Very toxic if swallowed.

Safety Phrases:

S 1 Keep locked up.

S 28A After contact with skin, wash immediately with plenty of water.

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# 79-19-6: 3

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 79-19-6 is listed on Canada's DSL List.

CAS# 79-19-6 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 79-19-6 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

MSDS Creation Date: 7/16/1996 Revision #1 Date: 7/04/2000

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.