

1-Phenyltetrazole-5-thiol 86-93-1 MSDS

Section 1 - Chemical Product MSDS Name:1-Phenyl-1H-Tetrazole-5-Thiol 99+% (Titr.; Dry Substance) Material Safety Data Sheet

Synonym:5-Mercapto-1-Phenyltetrazole; 1-Phenyl-5-Mercaptotetrazol

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content
86-93-1	1-PHENYL-1H-TETRAZOLE-5-THIOL	99+

Hazard Symbols: F

Risk Phrases: 11

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Highly flammable.Heat sensitive.The toxicological properties of this material have not been fully investigated.

Potential Health Effects

Eye:

May cause eye irritation. May cause conjunctivitis.

Skin:

May cause skin irritation. The toxicological properties of this material have not been fully investigated. Prolonged or repeated contact has been associated with the development of a dry scaly dermatitis or with secondary infections.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated. Mercaptans may cause nausea and headache.

Inhalation:

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Vapors may cause dizziness or suffocation. Mercaptans may cause nausea and headache.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.

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 immediately.

Skin:

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

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. 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:

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. Vapors may form an explosive mixture with air. Exposure to heat may promote violent decomposition. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Flammable solid.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Use water spray to reduce vapors or divert vapor cloud drift.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Use with adequate ventilation.

Minimize dust generation and accumulation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges.

Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly

closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.
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 ventilation to keep airborne concentrations low.

Exposure Limits CAS# 86-93-1: 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.

Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Color: white

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 143 deg C

Autoignition Temperature: 370 deg C (698.00 deg F)

Flash Point: 138 deg C (280.40 deg F)

Explosion Limits, lower: N/A

Explosion Limits, upper: N/A

Decomposition Temperature: 145 deg C

Solubility in water: insoluble

Specific Gravity/Density:

Molecular Formula: C7H6N4S

Molecular Weight: 178.22

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Unstable.

Conditions to Avoid:

Incompatible materials, ignition sources, dust generation, excess heat, temperatures above 130°C, mechanical shock.

Incompatibilities with Other Materials:

Oxidizing agents.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 86-93-1: XF7700000 LD50/LC50:

CAS# 86-93-1: Oral, mouse: LD50 = 1750 mg/kg.

Carcinogenicity:

1-PHENYL-1H-TETRAZOLE-5-THIOL - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

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, ORGANIC, N.O.S.*

Hazard Class: 4.1

UN Number: 1325

Packing Group: III

IMO

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

Hazard Class: 4.1

UN Number: 1325

Packing Group: III

RID/ADR

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

Hazard Class: 4.1

UN Number: 1325

Packing group: III

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F

Risk Phrases:

R 11 Highly flammable.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

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

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

S 33 Take precautionary measures against static discharges.

S 37 Wear suitable gloves.

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# 86-93-1: 2

Canada

CAS# 86-93-1 is listed on Canada's DSL List.

CAS# 86-93-1 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 86-93-1 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

N/A
