

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Nickel (II) sulfide
CAS #: 16812-54-7
FORMULA: Ni₃S₂/NiS
SYNONYM: Nickel monosulfide

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	16812-54-7	100	0.2mg/m ³ (as Ni-insoluble)	1mg/m ³ (as insoluble Ni)

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: Irritating to skin, eyes and respiratory tract. May cause sensitization by skin contact. May cause cancer by inhalation.

PRIMARY ROUTES OF EXPOSURE: Ingestion, inhalation, skin and eyes

EYE CONTACT: Dust causes moderate irritation of the eyes.

SKIN CONTACT: Causes slight irritation of the skin. Prolonged contact with nickel salts may lead to dermatitis.

INHALATION: Inhalation of dust will lead to irritation of the respiratory tract. May cause cancer by inhalation.

INGESTION: Gastric juices may cause release of toxic hydrogen sulfide, causing, nausea, dizziness, pulmonary edema, death.

CHRONIC HEALTH EFFECTS: Long term exposure to nickel and nickel compounds may lead to skin irritation and dermatitis. May cause cancer.

ACUTE HEALTH EFFECTS: Irritating to skin, eyes and respiratory tract. May cause sensitization by skin contact.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable
AUTO IGNITION TEMPERATURE: no data
EXPLOSION LIMITS: no data
EXTINGUISHING MEDIUM: carbon dioxide or dry powder
SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit fumes of hydrogen sulfide and sulfur dioxide
UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: In the case of a spill, the fine powder should be covered with dry sodium carbonate or dolomite in order to reduce the formation of dust. Sweep up the mixture.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container. Exposure to the atmosphere may lead to release of toxic hydrogen sulfide gas. Empty containers may retain product residues that evolve toxic gases.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.
SKIN PROTECTION: Chemical-resistant.
VENTILATION: If possible, handle the material in an efficient fume hood.
RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: black powder
MOLECULAR WEIGHT: not applicable
MELTING POINT (DEG. C.): no data
BOILING POINT: no data
VAPOR PRESSURE: not applicable
SPECIFIC GRAVITY: 5.3-5.65
SOLUBILITY IN WATER: insoluble

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization
CONDITIONS TO AVOID: Contact of dust cloud with an ignition source.
INCOMPATIBILITY: none
DECOMPOSITION PRODUCTS: hydrogen sulfide, sulfur dioxide, and metal oxides

SECTION 11 Toxicological Information

RTECS DATA: No specific information available on this product.
MUTAGENIC EFFECTS: no data
TETRATOGENIC EFFECTS: no data
CARCINOGENIC EFFECTS: no data
To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Non-hazardous

Non-hazardous

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory
SARA (TITLE 313): Title compound : See category N495 for reporting.

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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