

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Trade Name:** Nickel Disulfide

**Chemical Formula:** NiS<sub>2</sub>

**Manufacturer Item Number:** NI-4220

**Manufacturer:** Lorad Chemical Corporation  
1200 19th Street North  
Saint Petersburg, Florida, 33713  
United States of America

**Telephone:** +1 (727) 826-5511

**Fax:** +1 (727) 826-5510

**Emergency Contact:** (800) 255-3924 (US & Canada)  
+1 (813) 248-0573 (International)

## 2. HAZARD IDENTIFICATION

**Signal Word:** Danger

**Pictograms:**



**Hazard Statements:**

- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
- H350 May cause cancer by inhalation.
- H372 Causes damage to organs through prolonged or repeated exposure if inhaled.
- H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements:** Prevention

- P210 Obtain special instructions before reuse.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breath dust / fumes / gas / mist / vapors / spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink, or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.

**Response**

- P302+313 IF ON SKIN: Wash with plenty of soap and water.
- P308+313 If exposed or concerned: Get medical advice / attention.
  - P321 Specific treatment (see supplemental first aid instructions on this label).
- P333+313 If skin irritation or rash occurs: Get medical advice / attention.
  - P363 Wash contaminated clothing before reuse.
  - P391 Collect spillage.

**Storage**

- P405 Store locked up.

**Disposal**

P501 Dispose of contents / container to an approved waste disposal plant.

**Other Hazards** No Data Available.

**HMIS Ratings (0-4)**

- Health: 2\*  
 - Flammability: 0  
 - Physical: 0

**3. COMPOSITION**
**Additional Names:** Nickel monosulfide, nickelous sulfide

Percentage:	Component	Classification	Concentration
	Nickel Disulfide	Skin Sens. 1; H317, Muta. 2, H341, Carc. 1A; H350, STOT RE 1; H372, Aquatic Chronic 1; H410	100 wt%

**CAS #:** 12035-51-7

**EC #:** 234-349-7

**4. FIRST AID PROCEDURES**
**General Treatment** Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.

**Special Treatment:** No Data Available.

**Important Symptoms:** The most important known symptoms and effects are described in the labeling (see Section 2) and / or Section 11.

**Inhalation:** If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin:** For skin contact, flush with large amounts of soap and water while removing contaminated clothing. Take victim immediately to hospital. Consult a physician.

**Eyes:** Immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Consult a physician.

**5. FIREFIGHTING MEASURES**
**Special Hazards from Substance:** No Data Available.

**Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus for firefighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES**
**If Material is Released / Spilled:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Sweep up or vacuum up spillage and collect in suitable closed container for disposal. Dispose of waste in accordance with applicable federal, state, local, and provincial environmental regulations.

**Environmental Precautions:** Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses. Discharge into the environment must be avoided.

## 7. HANDLING AND STORAGE

**Handling Conditions:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide adequate exhaust ventilation at places where dust is formed. For additional precautions see Section 2.

**Storage Conditions:** Keep container tightly closed in a dry and well ventilated place.

**Work / Hygienic Maintenance:** Do not eat, drink, or smoke when working with this product. Wear protective gloves and wash skin thoroughly after handling. Keep formation of airborne dusts to a minimum. Guard against dust accumulation. In case of insufficient ventilation, wear suitable respiratory equipment.

**Ventilation:** Keep in well ventilated area.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	OSHA	PEL	1.0 mg/m <sup>3</sup>	Nickel, metal and insoluble compounds (as Ni) - Occupational Exposure Limit (air contaminant) (Table Z-1)
	California	PEL	0.1 mg/m <sup>3</sup>	Nickel, insoluble compounds (as Ni) (8-hour total weighted average) - California permissible exposure limit for chemical contaminants (Title 8, Article 107)

Threshold Limit Value:	Authority	Basis	Limit	Remarks
	NIOSH	REL	0.015 mg/m <sup>3</sup>	Nickel, insoluble compounds (as Ni) (up to 10-hour total weighted average)
	ACGIH	TLV	0.2 mg/m <sup>3</sup>	Nickel, insoluble inorganic compounds (as Ni) (up to 8-hour total weighted average)

**Special Equipment:** No Data Available.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type P100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineered controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US or CEN (EU)).

**Protective Gloves:** Handle with gloves. Gloves must be inspected prior to use. use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye Protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Body Protection:** If suit is the sole means of protection, a complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 9. PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>Color:</b>	Black	<b>Molecular Weight:</b>	122.82 g/mol
<b>Forms:</b>	Powder	<b>Theoretical Density:</b>	5.8 g/cm <sup>3</sup>

<b>Odor:</b>	No Data Available.	<b>pH:</b>	No Data Available.
<b>Water Solubility:</b>	No Data Available.	<b>Auto-Ignition Temperature:</b>	No Data Available.
<b>Boiling Point:</b>	No Data Available.	<b>Evaporation Rate:</b>	No Data Available.
<b>Melting Point / Freezing Point:</b>	No Data Available.	<b>Flammability or Explosive Limits:</b>	No Data Available.
<b>Vapor Pressure:</b>	No Data Available.	<b>Partition Coefficient: n-octanol/ water</b>	No Data Available.
<b>Vapor Density:</b>	No Data Available.	<b>Decomposition Temperature:</b>	No Data Available.
<b>Flash Point:</b>	No Data Available.	<b>Viscosity:</b>	No Data Available.

## 10. REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Reacts with:</b>	No Data Available.
<b>Incompatible Conditions:</b>	Strong acids, strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Hazardous decomposition products formed under fire conditions: sulphur oxides, nickel / nickel oxides. In the event of a fire see Section 5.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Toxicity</b>	Eyes: Causes serious eye damage / eye irritation.
	Skin: Causes Skin irritation.
	Ingestion: Harmful if ingested.
	Inhalation: Harmful if inhaled.
<b>Chronic Toxicity</b>	Skin Corrosion / Irritation: No Data Available.
	Serious Eye Damage / Irritation: No Data Available.
	Respiratory / Skin Sensitization: May cause sensitization by inhalation or skin contact.
	Mutagenic Effects: Mutagenic category 2 - May cause heritable genetic damage.
	Reproductive / Teratogenic Effects: No Data Available.
	Specific Target Organ Toxicity: No Data Available. (single exposure)
	Specific Target Organ Toxicity: No Data Available. (repeated exposure)
	Aspiration Hazard: No Data Available.
	Other Adverse Effects: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
<b>Carcinogenicity:</b>	IARC: This is or contains a component that has been reported to be carcinogenic based on its classification. Group 1 - Carcinogenic to humans.
	ACGIH: This is or contains a component that has been reported to be carcinogenic based on its classification. A1 - Confirmed human carcinogen.

NTP: This is or contains a component that has been reported to be a known carcinogenic based on its classification.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Additional Information:** No Data Available.

## 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity:** Very toxic to aquatic life with long lasting effects.

**Persistence and degradability:** No Data Available.

**Bioaccumulative potential:** No Data Available.

**Notes:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

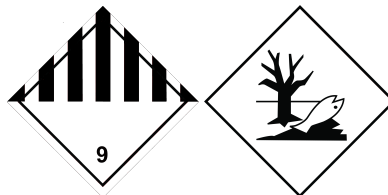
## 13. DISPOSAL CONSIDERATIONS

**Disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Empty containers should be taken to an appropriated waste handling site for recycling or disposal. Dispose of in accordance with local, state, or national regulations.

## 14. TRANSPORTATION DATA

**Hazardous:** **DoT:** Not Dangerous Goods.  
**IMDG:** Environmentally Hazardous Substance.  
**IATA:** Environmentally Hazardous Substance.

**Pictogram:**



**Hazard Class:** 9

**Packing Group:** III

**UN Number:** UN3077

**US DoT** **Proper Name:** N/A

Marine Pollutant: N/A

**IMDG** **Proper Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel Disulfide)

EMS-No: F-A, S-F

Marine Pollutant: Yes

**IATA** **Proper Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Nickel Disulfide)

**Additional Information** EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or >5kg for solids.

**15. REGULATORY INFORMATION**

<b>Toxic Substance Control Act</b>	Yes
<b>SARA 302 Components</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 313 Components</b>	The following components are subject to the reporting levels established by SARA Title III, Section 313:  Nickel Disulfide (CAS No. 12045-51-7)
<b>SARA 311/312 Hazards</b>	Acute Health Hazard, Chronic Health Hazard
<b>Massachusetts Right to Know Components</b>	No components are subject to the Mass. Right to Know Act.
<b>Pennsylvania Right to Know Components</b>	This material is known to the State of Pennsylvania as a Environmentally Hazardous Substance and Special Hazardous Substance:  Nickel Compounds
<b>New Jersey Right to Know Components</b>	Nickel Disulfide (CAS No. 12045-51-7)
<b>California Prop. 65 Components</b>	This material is known to the State of California to cause cancer:  Nickel Compounds

**16. OTHER INFORMATION**

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