



LTS Research Laboratories, Inc.
Safety Data Sheet
Nickel Metal

1. Product and Company Identification

Trade Name: Nickel
Chemical Formula: Ni
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

Emergency Contact (ChemTrec) Tel #: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H228 Flammable solid powder
H317 May cause allergic skin reaction
H351 Suspected of causing cancer
H372 Causes damage to lungs, kidneys, and liver through prolonged or repeated inhalative exposure.

Precautionary Statements: P210 Keep away from sparks/heat. No smoking.
P241 Use explosion-proof equipment
P260 Do not breathe dust/fume
P302+P352 If on skin: wash with plenty of water

HMIS Health Ratings (0-4):
Health: 1
Flammability: 0 (3 if powder)
Reactivity: 1

3. Composition

Chemical Family: Metal
Additional Names: N/A

Nickel (Ni):
Percentage: 100 wt%
CAS #: 7440-02-0
EC #: 231-111-4

4. First Aid Procedures

| | |
|---------------------|---|
| General Treatment: | Seek medical attention if symptoms persist. |
| Special Treatment: | None |
| Important Symptoms: | None |
| Inhalation: | Remove victim to fresh air. Supply oxygen if breathing is difficult. |
| Ingestion: | Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. |
| Skin: | Wash affected area with mild soap and water. Remove any contaminated clothing. |
| Eyes: | Flush eyes with water, blinking often for ten minutes. |

5. Fire and Explosion Hazards Data

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|--------------------------------|--|
| Flammability: | Non-flammable, except as powder |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Extinguishing Media: | Do not use water for metal fires. Use special powder, sand, CO2 |
| Spec. Fire Fighting Procedure: | Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. |

6. Accidental Release Measures

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|----------------------------------|--|
| If Material Is Released/Spilled: | Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust. |
| Environmental Precautions: | Isolate runoff to prevent environmental pollution. |

7. Handling and Storage

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|----------------------------|--|
| Handling Conditions: | Wash thoroughly after handling. |
| Storage Conditions: | Store in a cool dry place in a tightly sealed container. |
| Work/Hygienic Maintenance: | Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air. |
| Ventilation: | Provide sufficient ventilation to maintain concentration at or below TLV. |

8. Exposure Controls and Personal Protection

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|------------------------------|---|
| Permissible Exposure Limits: | 1.0 mg/m ³ as Nickel, long-term (USA) |
| Threshold Limit Value: | 1.5 mg/m ³ as Nickel, long-term (USA) |
| Special Equipment: | None |
| Respiratory Protection: | Dust Respirator, NIOSH approved |
| Protective Gloves: | Rubber gloves |
| Eye Protection: | Safety glasses / goggles |
| Body Protection: | Protective work clothing. Wear close-toed shoes and long sleeves/pants. |

9. Physical and Chemical Characteristics

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|-------------------|--|
| Color | Metallic grey |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Insoluble |
| Boiling Point: | 2732 °C |
| Melting Point: | 1455 °C |
| Density: | 8.91 g/cc |
| Molecular weight: | 58.693 g/mol |

10. Reactivity

| | |
|------------------------------|---|
| Stability: | Stable under recommended storage conditions |
| Reacts With: | Halogens, Oxidizing agents |
| Incompatible Conditions: | Excessive heat, sparks |
| Haz. Decomposition Products: | Metal oxide fume |

11. Toxicological Information

Potential Health Effects:

| | |
|-------------|--|
| Eyes: | Causes irritation |
| Skin: | May cause allergic reaction |
| Ingestion: | May cause irritation |
| Inhalation: | May cause irritation |
| Chronic: | Causes damage to the lung, the kidneys and the liver through prolonged or repeated exposure by inhalation. |

Routes of Entry:

Target Organs: Lung, the kidneys and the liver

Signs & Symptoms of Exposure: N/A

Medical Conditions

Aggravated by Exposure: N/A

Median Lethal Dose: N/A

Carcinogen:

IARC-2B Suspected of causing cancer.
Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals.

NTP-R Reasonably anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals.

ACGIH A5: Not suspected as a human carcinogen: Not suspected as a human carcinogen on the basis of properly conducted epidemiologic studies in humans. Studies have sufficiently long follow-up, reliable exposure histories, sufficiently high dose, and adequate statistical power to conclude that exposure to the agent does not convey a significant risk of cancer to humans. Evidence suggesting a lack of carcinogenicity in experimental animals will be considered if it is supported by other relevant data.

12. Ecological Information

Ecological data is not available.

13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

14. Transportation Data

Hazardous: Hazardous as powder only.



Hazard Class: 4.1 Flammable solids, self-reactive substances and solid desensitized explosives.

Packing Group: II

UN Number: UN3089

Proper Shipping Name: RQ Metal powders, flammable, n.o.s. (nickel powder)

DOT Reportable Quantities: 100 lbs (45.4 kg)

15. Regulatory Information

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: Yes

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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