LTS Research Laboratories, Inc.
Safety Data Sheet
Nickel Metal

1. Product and Company Identification

Trade Name:	Nickel metal
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
24-Hour Emergency Contact:	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 an allergic skin reaction
H351 Suspected of causing cancer
H372 Causes damage to the lung, the kidneys and the liver through prolonged or repeated exposure. Route of exposure: Inhalative

Precautionary Statements:
P210 Keep away from heat/sparks/flame. No smoking.
P240 Ground/bond container and receiving equipment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P280: Wear protective gloves/protective clothing/eye protection/face protection
P363 Wash contaminated clothing before reuse
P405 Store locked up
P501 Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):	Powder	Pieces & larger
Health:	1	1
Flammability:	3	0
Physical:	1	0

3. Composition

Chemical Family:	Metal
Additional Names:	None
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:	Supply fresh air and if required, provide artificial respiration. Seek medical attention.
Ingestion:	Seek medical attention.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical advice.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Consult a doctor.

5. Firefighting Measures

Flammability:	Flammable as powder
Extinguishing Media:	Special powder for metal fires. Do not use water or carbon dioxide.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide adequate 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. Keep away from ignition sources.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
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. Protect against electrostatic charges.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	1 mg/m^3 as Ni, ceiling limit value
Threshold Limit Value:	0.015 mg/m^3 as Ni, respirable, long-term value 1.5 mg/m^3 as Ni, inhalable fraction, long-term value
Special Equipment:	None
Respiratory Protection:	Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber, NBR 0.11mm thick.
Penetration time of glove material:	480 minutes
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Silver grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	2732 °C (4950 °F)
Melting Point:	1455 °C (2651 °F)
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	8.908 g/cc (74.337 lbs/gal)
Molecular weight:	58.6934 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts with:	N/A
Incompatible Conditions:	Halogens.
Hazardous Decomposition Products:	Nickel oxides

11. Toxicological Information

Potential Health Effects:

Eyes:	Causes irritation
Skin:	May cause irritation or 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
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	Suspected of causing cancer IARC-2B, NTP-R, ACGIH-A5

12. Ecological Information

Aquatic Toxicity:	Moderate
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	Do not allow to reach ground water

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous:	Hazardous as powder only.

Hazard Class:	4.1 Flammable solids
Packing Group:	II
UN Number:	UN3089
Proper Shipping Name:	Metal powders, flammable, n.o.s. (Nickel)

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.

Document Last Revised: 07/14/2016