



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Neodymium

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1. Product and Company Identification

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Trade Name:	Neodymium
Chemical Formula:	Nd
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	2001 Oaks Pkwy
City:	Belmont
State:	North Carolina
Zip Code:	28012
Country:	USA
Tel #:	855-587-2436 / 855-lts-chem
24-Hour Emergency Contact:	800-424-9300 (US & Canada) +1-703-527-3887 (International)



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## 2. Hazards Identification

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Signal Word:

Danger



Hazard Statements:

H228: Flammable solid  
H251: Self-heating; may catch fire  
H315: Causes skin irritation  
H319: Causes serious eye irritation

Precautionary Statements:

P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking  
P235 + P410: Keep cool. Protect from sunlight  
P240: Ground/bond container and receiving equipment  
P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment  
P264: Wash skin thoroughly after handling  
P280: Wear protective gloves/ eye protection/ face protection  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P332 + P313: If skin irritation occurs: Get medical advice/ attention  
P337 + P313: If eye irritation persists: Get medical advice/ attention  
P362: Take off contaminated clothing and wash before reuse  
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-Resistant foam to extinguish  
P403 + P235: Store in a well-ventilated place. Keep cool  
P407: Maintain air gap between stacks/ pallets  
P420: Store away from other materials  
P501: Dispose of contents/container in accordance with local/regional/ national/international regulations

HMIS Health Ratings (0-4):

	Powder	Bulk
Health:	1	1
Flammability:	3	1
Physical:	2	1

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## 3. Composition

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Chemical Family:

Metal

Additional Names:

None

Neodymium (Nd):

Percentage:	100 wt%
CAS #:	7440-00-8
EC #:	231-109-3

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#### 4. First Aid Procedures

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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:	Seek medical attention.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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#### 5. Firefighting Measures

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Flammability:	Catches fire spontaneously if exposed to air, pyrophoric (powder) Contact with water releases hydrogen (powder) Non-powders are non-flammable
Extinguishing Media:	Do not use water for metal fires – use CO <sub>2</sub> , sand, extinguishing powder.
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.

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#### 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.

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#### 7. Handling and Storage

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Handling Conditions:	Handle under dry protective gas. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store under dry inert gas. 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.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

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#### 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	None
Respiratory Protection:	Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	Grey to Silver
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	3074 °C
Melting Point:	1021 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	7.01 g/cc
Molecular weight:	144.24 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts with:	Strong acids, Nitrogen, Strong oxidizing agents, Phosphorous acid, Halogens
Incompatible Conditions:	N/A
Hazardous Decomposition Products:	None under recommended use conditions

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	Causes serious eye irritation
Skin:	Causes skin irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

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## 12. Ecological Information

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Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	N/A

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## 13. Disposal Considerations

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

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#### 14. Transportation Data

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Hazardous:

As fine powder:



Hazard Class:

4.2 Substance liable to spontaneous combustion

Packing Group:

II

UN Number:

UN3189

Proper Shipping Name:

Metal powder, self-heating, n.o.s. (Neodymium powder)

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#### 15. Regulatory Information

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Sec 302 Extremely Hazardous:

No

Sec 304 Reportable Quantities:

N/A

Sec 313 Toxic Chemicals:

No

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#### 16. Other Information

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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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