



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Nickel Phosphide

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1. Product and Company Identification

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Trade Name: Nickel phosphide  
Chemical Formula: Ni<sub>3</sub>P  
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)

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2. Hazards Identification

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Signal Word: Danger



Hazard Statements: H317 May cause an allergic skin reaction  
H350 May cause cancer by inhalation  
H372 Causes damage to organ through prolonged or repeated exposure  
H410 Very toxic to aquatic life with lasting effects

Precautionary Statements: P201 Obtain special instructions before use  
P273 Avoid release to the environment  
P280 Wear protective gloves  
P308+P313 If exposed: Seek medical attention

HMIS Health Ratings (0-4):

Health: 2  
Flammability: 0  
Physical: 0

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3. Composition

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Chemical Family: Salt  
Additional Names: N/A

Nickel (Ni):  
Percentage: 0-100 wt%  
CAS #: 1295-35-8

Phosphorus (P):  
Percentage: 0-100 wt%  
CAS #: 7723-14-0

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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:	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 several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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#### 5. Fire and Explosion Hazards Data

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Flammability:	Non-flammable
Flash Point:	N/A
Autoignition Temperature:	N/A
Extinguishing Media:	Do not use water – 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.

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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:	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 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:	Dust Respirator, NIOSH approved
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
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless (Garlic odor may indicate highly flammable, toxic gas)
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	N/A
Density:	N/A
Molecular weight:	148.36 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents, Acids, Halogens, Strong bases
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fume

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## 11. Toxicological Information

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### Potential Health Effects:

Eyes:	May cause irritation
Skin:	Harmful if absorbed through skin. May cause allergic reaction.
Ingestion:	Harmful if swallowed
Inhalation:	Harmful if inhaled
Chronic:	N/A

### Signs & Symptoms:

N/A

### Aggravated Medical Conditions:

N/A

### Median Lethal Dose:

N/A

### Carcinogen:

IARC: Group 1: Carcinogenic to humans

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## 12. Ecological Information

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### Notes:

Very toxic to aquatic organisms. May harm environment with long-lasting effects.  
Do not allow runoff to reach drinking water even in small amounts.

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## 13. Disposal Considerations

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

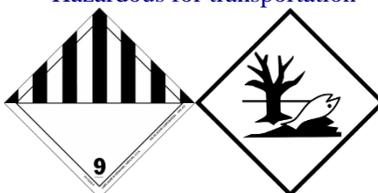
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## 14. Transportation Data

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### Hazardous:

Hazardous for transportation



### Hazard Class:

9 Miscellaneous hazardous substances

### Packing Group:

III

### UN Number:

UN3077

### Proper Shipping Name:

Environmentally hazardous substance, solid, n.o.s. (Nickel phosphide)

### Additional markings:

Environmental hazard

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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:	Yes

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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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