
1. Product and Company Identification

Trade Name: Erbium Nickel Alloy
Chemical Formula: ErNi
Recommended Use: Scientific research and development

Manufacturer/Supplier: Stanford Advanced Materials
Address: 23661 Birtcher Dr. Lake Forest,
CA 92630 USA
Tel: +1 (949) 407-8904

24-Hour Emergency Contact: +1 (949) 407-8904

2. Hazards Identification

Signal Word: Danger



Hazard Statements:

H228: Flammable solid.
H260: In contact with water releases flammable gases which may ignite spontaneously.
H317: May cause an allergic skin reaction.
H351: Suspected of causing cancer.
H372: Causes damage to organs through prolonged or repeated exposure: Inhalative.

Precautionary Statements:

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P231+P232: Handle under inert gas. Protect from moisture.
P240: Ground/bond container and receiving equipment.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P363: Wash contaminated clothing before reuse.
P370+P378: In case of fire: Use special powder for metal fire for extinction.
P402+P404: Store in a dry place. Store in a closed container.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

HMIS Health Ratings (0-4):

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| Health: | 1 |
| Flammability | 3 |
| : Physical: | 2 |

3. Composition

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| Chemical Family: | Alloy |
| Additional Names: | N/A |
| Erbium (Er): | |
| Percentage: | 0-100 wt% |
| CAS #: | 7440-52-0 |
| EC #: | 231-160-1 |
| Nickel (Ni): | |
| Percentage: | 0-100 wt% |
| CAS #: | 7440-02-0 |
| EC #: | 231-111-4 |

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. Seek immediate medical attention. |
| Ingestion: | Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. |
| Skin: | Wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention. |
| Eyes: | Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention. |

5. Firefighting Measures

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| Flammability: | Non-flammable, except as powder |
| Extinguishing Media: Spec. Fire Fighting Procedure: | Do not use water for metal fires – special extinguishing powder. 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

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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. Handle under dry protective gas |
| 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. |
| Ventilation: | Provide sufficient ventilation to maintain concentration at or below threshold limit. |

8. Exposure Controls and Personal Protection

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| Permissible Exposure Limits: | 1 mg/m ³ as Ni, long-term value |
| Threshold Limit Value: | 0.015 mg/m ³ as Ni, long-term value |
| Special Equipment: | None |
| Respiratory Protection: | Use a recommended dust respirator or mask. 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. |

9. Physical and Chemical Characteristics

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| Color | N/A |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Insoluble |
| Boiling Point: | N/A |
| Melting Point: | N/A |
| Flash Point: | N/A |
| Autoignition | N/A |
| Temperature: Density: | N/A |
| Molecular weight: | N/A |

10. Reactivity

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| Stability: | Stable under recommended storage conditions |
| Reacts With: | Oxidizing agents, halogens, water, acids, acid chlorides |
| Incompatible Conditions: | Moisture |
| Hazardous Decomposition Products: | Metal oxide fume |

11. Toxicological Information

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| Potential Health Effects: | |
| Eyes: | May cause irritation |
| Skin: | May cause irritation |
| Ingestion: | May cause irritation |
| Inhalation: | May cause irritation |
| Chronic: | Causes damage to the lung, the kidneys and liver through prolonged exposure. |
| Signs & Symptoms: Aggravated | N/A |
| Medical Conditions: | N/A |
| Median Lethal Dose: | N/A |
| Carcinogen: | IARC-2B: Possibly carcinogenic to humans: limited evidence in human in the absence of sufficient evidence in experimental animals. NTP-R: Reasonably anticipated to be a carcinogen, limited evidence of carcinogenicity from epidemiologic studies. |

12. Ecological Information

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| Aquatic Toxicity: | Moderate |
| Persistent Bioaccumulation Toxicity: | No |

Very Persistent, Very Bioaccumulative: No
Notes: Do not allow in 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: Packing 4.1 Flammable solids
Group: II
UN Number: UN3178
Proper Shipping Name: Flammable solid, inorganic, N.O.S (Erbium Nickel Alloy)

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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