

**Iron Metal (Pellets, Evaporation Slugs, Sputtering targets)**

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**1. Product Identification**

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Trade Name:	Iron (Pellets, Evaporation Slugs, Sputtering targets)
Chemical Formula:	Fe
Recommended Use:	Scientific research and development

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**2. Hazards Identification**

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Signal Word	None in provided form
Hazard Statements	Not Classified
Precautionary statements	P261 Avoid breathing dust/fume/vapor P210: Keep away from heat/sparks/open flames/hot surfaces - air- No smoking P280: Wear protective gloves/protective clothing/eye protection/face protection P305+P351+P338: IF IN EYES: Rinse cautiously with water several minutes. Remove contact lenses if present and easy to do – continue rinsing P405: Store locked up P501: Dispose of contents/container in accordance with local/regional/national/international regulations
HMIS Ratings (0-4):	Bulk
Health	0
Flammability	0
Physical:	0

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**3. Composition**

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Chemical Family:	Metal
Additional Names:	None
Iron (Fe):	
Percentage:	100 wt%
CAS #:	7439-89-6
EC #:	231-096-4

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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

## Iron Metal (Pellets, Evaporation Slugs, Sputtering targets)

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: This product is not flammable in current form  
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: 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.  
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: 5 mg/m<sup>3</sup> as Fe, long-term value  
Special Equipment: None  
Respiratory Protection: No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, use Dust Respirator  
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: Pellets, Evaporation Slugs, Sputtering target, Custom parts

## Iron Metal (Pellets, Evaporation Slugs, Sputtering targets)

Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	2740 °C
Melting Point:	1538 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	7.87 g/cc
Molecular weight:	55.845 g/mol

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### 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents. There are no known reactivity hazards associated with this product.
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fume, Iron oxides

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### 11. Toxicological Information

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Potential Health Effects:	
Eyes:	Based on available data the classification criteria are not met
Skin:	Based on available data the classification criteria are not met
Ingestion:	Based on available data the classification criteria are not met
Inhalation:	Based on available data the classification criteria are not met
Chronic:	Based on available data the classification criteria are not met The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	30000 mg/kg for rat by mouth
Carcinogen:	Based on available data the classification criteria are not met The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

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### 12. Ecological Information

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Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bio-accumulative:	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: The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

Hazard Class: No transport warning sign required.

Packing Group: Not Applicable

UN Number: Not applicable

Proper Shipping Name: Not applicable

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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. **No warranty, guarantee or representation is made to its accuracy, reliability or completeness.** These materials should only be handled by, or under the direct supervision of a “technically qualified individual”, as defined in TSCA regulations 40 CFR 710.3(ee). 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: 06/26/2015