

## Material Safety Data Sheet

**Product: Iron Standard**

Part Number: 0998-8017  
MSDS Number: X998-8017  
24-Hour Emergency Phone: Revision: B  
CHEMTREC (800) 424-9300 Date: February 15, 1993

### SECTION I: MATERIAL IDENTIFICATION

TRADE/MATERIAL NAME: Iron Wire.

SYNONYMS: None.

CHEMICAL FORMULA: Fe

CAS NUMBER: 7439-89-6

MOLECULAR WEIGHT: 55.85

DOT HAZARD CLASS: No data found.

### SECTION II: INGREDIENTS AND HAZARDS

HAZARDOUS INGREDIENTS: Iron.

PRECAUTIONARY MEASURES:

Avoid inhalation, ingestion and contact with eyes and skin.  
Wear chemical resistant goggles, face shield, gloves and clothing.  
Wear NIOSH/MSHA approved respirator.  
Use in a laboratory hood or with local exhaust.  
Wash thoroughly after use.  
Keep container tightly sealed when not in use.

### SECTION III: PHYSICAL DATA

APPEARANCE: Gray wire.

ODOR: Odorless.

SOLUBILITY: Insoluble in water.

BOILING POINT: 3000°C (5432°F)

MELTING POINT: 1535°C (2795°F)

SPECIFIC GRAVITY (Water=1): 7.86

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VAPOR DENSITY (Air=1): Not applicable.

VAPOR PRESSURE (mm Hg): Not applicable.

EVAPORATION RATE: Not applicable.

FLASH POINT: Not applicable.

FLAMMABLE LIMITS: Not applicable.

### SECTION IV: FIRE AND EXPLOSION INFORMATION

FIRE: Noncombustible.

EXPLOSION: Not an explosion hazard.

FIRE EXTINGUISHING MEDIA: Not applicable.

SPECIAL INFORMATION: Not applicable.

### SECTION V: REACTIVITY DATA

STABILITY: Stable.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of iron.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Extremely violent or explosive reactions have been reported to occur when iron is allowed to come into contact with the following materials: chlorine, chlorine trifluoride, fluorine, hydrogen peroxide, nitrogen dioxide, phosphorus, sodium carbide, sulfuric acid.

### SECTION VI: HEALTH HAZARD INFORMATION

#### A. EXPOSURE ROUTE AND HEALTH EFFECTS

INHALATION: Irritating to the respiratory tract if inhaled as iron dust or iron oxide fume ( $\text{Fe}_2\text{O}_3$ ).

INGESTION: No data found. Regard as toxic by ingestion.

SKIN CONTACT: No data found.

EYE CONTACT: Irritating to the eyes in the form of dusts.

CHRONIC EXPOSURE: Prolonged or repeated overexposure to iron in the form of iron dust may cause palpebral conjunctivitis,

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pulmonary fibrosis and an increased incidence of lung cancer.

AGGRAVATION OF PREEXISTING CONDITIONS: Consult a physician prior to assigning workers with eye, pulmonary or respiratory disorders to tasks involving the use of iron where the generation of dust, fume or vapor is possible.

### B. FIRST AID

INHALATION: Move person to fresh air. Administer oxygen if person experiences difficulty in breathing.

INGESTION: Immediately contact local poison control center.

SKIN CONTACT: Remove contaminated clothing, then flush skin with water for at least 15 minutes. Wash clothing thoroughly, and separately, before re-use.

EYE CONTACT: Flush with water for at least 15 minutes, occasionally lifting upper and lower eyelids.

IF IRRITATION CONTINUES, GET MEDICAL ATTENTION IMMEDIATELY.

### C. TOXICITY DATA:

RTECS NUMBER: NO4565500

TOXICITY DATA: LDLo intraperitoneal (rabbit): 20 mg/kg

### SECTION VII: SPILL/LEAK AND DISPOSAL INFORMATION

SPILLS: Spills may be swept up, avoiding generation of dust. Place material in a sealed container for proper disposal.

DISPOSAL: Comply with all Federal, state and local regulations.

### SECTION VIII: SPECIAL PROTECTION INFORMATION

#### AIRBORNE EXPOSURE LIMITS:

SUBSTANCE	THRESHOLD LIMIT VALUE
Iron Oxide Fume (as Iron)	5 mg/m <sup>3</sup> TWA

VENTILATION SYSTEM: Laboratory hood or local exhaust.

RESPIRATORS: NIOSH/MSHA approved.

SKIN PROTECTION: Chemical resistant clothing and gloves.

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EYE PROTECTION: Chemical resistant goggles and face shield.

### SECTION IX: SPECIAL PRECAUTIONS

Keep separated from incompatible materials.

Keep container tightly sealed when not in use.

Avoid generation of dust, fumes or vapors.

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