

**SIGMA-ALDRICH****Material Safety Data Sheet**

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 Version 1.50

**Section 1 - Product and Company Information**

Product Name	Iron, foil, 0.25mm thick, 99.99+% metals basis
Product Number	338141
Brand	Aldrich Chemical
Company	Sigma-Aldrich
Address	3050 Spruce Street
City, State, Zip, Country	SAINT LOUIS, MO 63103 US
Technical Phone:	800-325-5832
Fax:	800-325-5052
	Emergency Phone: 314-776-6555

**Section 2 - Composition/Information on Ingredient**

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
IRON (WIRE OR FOIL)	7439-89-6	No	231-096-4	
Formula Synonyms	Fe			

**Section 3 - Hazards Identification**

<b>HMIS Rating</b>		
Health: 0	Flammability: 0	Reactivity: 0
<b>NFPA Rating</b>		
Health: 0	Flammability: 0	Reactivity: 0

For additional information on toxicity, please refer to Section 11.

**Section 4 - First Aid Measures**

**Oral Exposure**  
 If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure**  
 If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Dermal Exposure**  
 In case of contact, immediately wash skin with soap and copious amounts of water.

**Eye Exposure**  
 In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Information for Physician**  
 Contamination of the eyes should be treated by immediate and prolonged irrigation with copious amounts of water.

**Section 5 - Fire Fighting Measures**

**Autogignition Temp:** N/A

**Extinguishing Media****Suitable**

Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

**Firefighting****Protective Equipment**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Specific Hazard(s)**

Emits toxic fumes under fire conditions.

**Exposure Hazard(s)****Material**

Toxic. Irritant.

**Section 6 - Accidental Release Measures****Procedure(s) of Personal Precaution(s)**

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

**Methods for Cleaning Up**

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Section 7 - Handling and Storage****Handling****User Exposure**

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage****Suitable**

Keep tightly closed.

**Section 8 - Exposure Controls / PPE****Engineering Controls**

Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment****Respiratory**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks.

**Hand**

Protective gloves.

**Eye**

Chemical safety goggles.

**General Hygiene Measures**  
Wash thoroughly after handling.

## Section 9 - Physical/Chemical Properties

### Appearance

**Physical State**  
Solid

**Molecular Weight:** 55.85 AMU

**pH** N/A  
**BP/BP Range** N/A  
**MP/MP Range** N/A  
**Freezing Point** N/A  
**Vapor Pressure** N/A  
**Vapor Density** N/A  
**Saturated Vapor Conc.** N/A  
**SG/Density** 7.86 g/cm<sup>3</sup>  
**Bulk Density** N/A  
**Odor Threshold** N/A  
**Volatile%** N/A  
**VOC Content** N/A  
**Water Content** N/A  
**Solvent Content** N/A  
**Evaporation Rate** N/A  
**Viscosity** N/A  
**Partition Coefficient** N/A  
**Decomposition Temp.** N/A  
**Flash Point °F** N/A  
**Flash Point °C** N/A

**Explosion Limits** N/A

**Flammability** N/A  
**Autoignition Temp** N/A  
**Solubility** N/A

N/A = not available

## Section 10 - Stability and Reactivity

### Stability

**Conditions of Instability**

Moisture sensitive.

**Conditions to Avoid**

Moisture.

**Materials to Avoid**

Acids, Halogens, Phosphorus.

**Hazardous Decomposition Products**  
**Hazardous Decomposition Products**  
Iron oxides.

**Hazardous Polymerization**  
**Hazardous Polymerization**  
Will not occur.

## Section 11 - Toxicological Information

### Route of Exposure

#### Skin Contact

May cause skin irritation.

#### Skin Absorption

May be harmful if absorbed through the skin.

#### Eye Contact

May cause eye irritation.

#### Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

#### Ingestion

May be harmful if swallowed.

### Signs and Symptoms of Exposure

Overdose of iron compounds may have a corrosive effect on the gastrointestinal mucosa and be followed by necrosis, perforation, and stricture formation. Several hours may elapse before symptoms that can include epigastric pain, diarrhea, vomiting, nausea, and hematemesis occur. After apparent recovery a person may experience metabolic acidosis, convulsions, and coma hours or days later. Further complications may develop leading to acute liver necrosis that can result in death due to hepatic coma. Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiologic impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance. Exposure can cause: Stupor, shock, abdominal cramps, vomiting, burning epigastric distress, central nervous system and cardiovascular disturbances, cyanosis, leukocytosis, hyperglycemia, lethargy, and pulmonary edema.

### RTECS Number:

### Toxicity Data

Oral - Rat: 30000 mg/kg (LD50)

Remarks: Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

Oral - Guinea pig: 20000 mg/kg (LD50)

Remarks: Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

### Chronic Exposure - Carcinogen

Rat - Intratracheal: 450 MG/KG 15W |

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.

## Section 12 - Ecological Information

No data available.

## Section 13 - Disposal Considerations

### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## Section 14 - Transport Information

### DOT

**Proper Shipping Name:** None

**Non-Hazardous for Transport:** This substance is considered to be non-hazardous for transport.

### IATA

**Non-Hazardous for Air Transport:** Non-hazardous for air transport.

## Section 15 - Regulatory Information

### United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes Yes

### Canada Regulatory Information

#### WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

## Section 16 - Other Information

### Disclaimer

For R&D use only. Not for drug, household or other uses.

### Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

