

## iron(3+) sulfate 10028-22-5 MSDS

**Section 1 - Chemical Product** MSDS Name: Ferric Sulfate Monohydrate Material Safety Data Sheet

Synonym: Diiron Trisulfate; Ferric Sulfate; Iron Persulfate; Iron Sesquisulfate; Iron Sulfate (2:3); Iron (3+) Sulfate; Sulfuric Acid, Iro

### Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content
10028-22-5	Ferric sulfate, monohydrate	100

Hazard Symbols: XN

Risk Phrases: 22

### Section 3 - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Harmful if swallowed.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause liver and kidney damage.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

### Section 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

## **Section 5 - FIRE FIGHTING MEASURES**

### General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

### Extinguishing Media:

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

## **Section 6 - ACCIDENTAL RELEASE MEASURES**

General Information: Use proper personal protective equipment as indicated in Section 8.

### Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal

## **Section 7 - HANDLING and STORAGE**

### Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Discard contaminated shoes.

### Storage:

Store in a cool, dry place. Keep containers tightly closed.

## **Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

### Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 10028-22-5: Belgium - TWA: (listed as iron salts (soluble)): 1 mg/m<sup>3</sup> VLE (as Malaysia: (listed as iron salts (soluble)): 1 mg/m<sup>3</sup> TWA (as Fe) Netherlands: (listed as iron salts (soluble)): 1 mg/m<sup>3</sup> MAC (as Fe Spain: (listed as iron salts (soluble)): 1 mg/m<sup>3</sup> VLA-ED (as Fe) Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

### Skin:

Wear appropriate protective gloves to prevent skin exposure.

### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

### Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Solid

Color: yellow-gray

Odor: odorless

pH: Not available.

Vapor Pressure: Negligible.

Viscosity: Not available.  
Boiling Point: Not applicable.  
Freezing/Melting Point: Decomposes.  
Autoignition Temperature: Not applicable.  
Flash Point: Not applicable.  
Explosion Limits, lower: Not available.  
Explosion Limits, upper: Not available.  
Decomposition Temperature: 480 deg C  
Solubility in water: Soluble in water.  
Specific Gravity/Density: 3.097  
Molecular Formula:  $\text{Fe}_2(\text{SO}_4)_3 \cdot \text{H}_2\text{O}$   
Molecular Weight: 399.8668

### **Section 10 - STABILITY AND REACTIVITY**

Chemical Stability:  
Stable under normal temperatures and pressures.  
Conditions to Avoid:  
Incompatible materials.  
Incompatibilities with Other Materials:  
Corrosive to metals.  
Hazardous Decomposition Products:  
Sulfur oxides (SO<sub>x</sub>), including sulfur oxide and sulfur dioxide.  
Hazardous Polymerization: Will not occur.

### **Section 11 - TOXICOLOGICAL INFORMATION**

RTECS#:  
CAS# 10028-22-5: NO8505000 LD50/LC50:  
Not available.  
Carcinogenicity:  
Ferric sulfate, monohydrate - Not listed by ACGIH, IARC, or NTP.  
Other:  
See actual entry in RTECS for complete information.

### **Section 12 - ECOLOGICAL INFORMATION**

### **Section 13 - DISPOSAL CONSIDERATIONS**

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

### **Section 14 - TRANSPORT INFORMATION**

IATA  
Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

USA RQ: CAS# 10028-22-5: 1000 lb final RQ; 454 kg final RQ

## **Section 15 - REGULATORY INFORMATION**

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WGK (Water Danger/Protection)

CAS# 10028-22-5: 1

Canada

CAS# 10028-22-5 is listed on Canada's DSL List.

CAS# 10028-22-5 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 10028-22-5 is listed on the TSCA inventory.

## **SECTION 16 - ADDITIONAL INFORMATION**

N/A