

## SAFETY DATA SHEET

Preparation Date: 04/09/2015

Revision date 8/9/2019

Revision Number: G2

### 1. IDENTIFICATION

#### Product identifier

**Product code:** F1042  
**Product Name:** FERRIC SUBSULFATE, POWDER, PURIFIED

#### Other means of identification

**Synonyms:** Iron subsulfate  
Monse's salt

**CAS #:** 1310-45-8  
**RTECS #** Not available  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Tom Tyner (USA - West Coast)  
**Contact Person:** Ibad Tirmiz (USA - East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

#### Label elements

Not classified

#### Hazards not otherwise classified (HNOC)

Not Applicable

#### Other hazards

Not available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Ferric Subsulfate	1310-45-8	100

### 4. FIRST AID MEASURES

#### First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

#### Most important symptoms and effects, both acute and delayed

- Symptoms**
- May cause eye/skin irritation
  - gastroenteritis
  - May cause abdominal pain, nausea, vomiting, diarrhea
  - black-colored stool
  - pink-colored urine
  - May affect the cardiovascular system
  - Central nervous system effects
  - Drowsiness
  - Convulsions
  - lethargy
  - May affect the liver
  - It may affect the kidneys
  - May cause metabolic acidosis

#### Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

#### Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

### 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

- Suitable Extinguishing Media:** The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

- Unsuitable Extinguishing Media:** No information available.

## Specific hazards arising from the chemical

**Hazardous combustion products**

No information available.

**Specific hazards**

No information available.

## Special Protective Actions for Firefighters

**Specific Methods:**

No information available

**Special Protective Equipment for Firefighters:**

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

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:**

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**Environmental precautions**

Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers.

### Methods and material for containment and cleaning up

**Methods for containment**

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up**

Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded.

**Safe Handling Advice:**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors/dust. Do not ingest. Do not smoke. Handle in accordance with good industrial hygiene and safety practice. Protect from light.

### Conditions for safe storage, including any incompatibilities

**Technical Measures/Storage Conditions:**

Sensitive to light. Store in light-resistant containers. Protect from light. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

**Incompatible Materials:**

No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

## National occupational exposure limits

### United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Ferric Sub sulfate	1310-45-8	None	None	None	None

### Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Ferric Sub sulfate	1310-45-8	None	None	None	None

### Australia and Mexico

Component	CAS No	Australia	Mexico
Ferric Sub sulfate	1310-45-8	None	None

## Appropriate engineering controls

### Engineering measures to reduce exposure:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

## Individual protection measures, such as personal protective equipment

### Personal Protective Equipment

#### Eye protection:

Goggles Safety glasses with side-shields.

#### Skin and body protection:

Long sleeved clothing  
Gloves

#### Respiratory protection:

Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

#### Hygiene measures:

Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical state:

Solid

#### Appearance:

Powder.

#### Color:

Yellow Brown.

#### Odor:

Practically odorless.

#### Taste

No information available.

#### Formula

FE4-(OH)2-(SO4)5

#### Molecular/Formula weight (g/mole):

No information available

#### Flammability (solid, gas)

no data available

#### Flashpoint (°C/°F):

No information available

#### Flash Point Tested according to:

Not available

#### Autoignition Temperature (°C/°F):

No information available

#### Lower Explosion Limit (%):

No information available

#### Upper Explosion Limit (%):

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No information available

**Melting point/range(°C/°F):**

No information available

**Decomposition temperature(°C/°F):**

No information available

**Boiling point/range(°C/°F):**

No information available

**Bulk density:**

No information available

**Density (g/cm<sup>3</sup>):**

No information available

**Specific gravity:**

No information available

**pH**

No information available

**Vapor pressure @ 20°C (kPa):**

No information available

**Evaporation rate:**

No information available

**Vapor density:**

No information available

**VOC content (g/L):**

No information available

**Odor threshold (ppm):**

No information available

**Partition coefficient**

**(n-octanol/water):**

No information available

**Viscosity:**

No information available

**Miscibility:**

No information available

**Solubility:**

Soluble in hot water

Soluble in cold water

## 10. STABILITY AND REACTIVITY

**Reactivity**

No information available

**Chemical stability**

**Stability:**

Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:**

Exposure to light.

**Incompatible Materials:**

No information available

**Hazardous decomposition products:**

Sulfur oxides.

**Other Information**

**Corrosivity:**

No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Principal Routes of Exposure:**

Inhalation. Ingestion.

**Acute Toxicity**

**Component Information**

Ferric Subsulfate

CAS No

1310-45-8

**Product code:** F1042

**Product name:** FERRIC  
SUBSULFATE, POWDER, PURIFIED

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LD50/oral/rat = No information available  
LD50/oral/mouse = No information available  
LD50/dermal/rabbit = No information available  
LD50/dermal/rat = No information available  
LC50/inhalation/rat = No information available  
LC50/inhalation/mouse = No information available  
Other LD50 or LC50 information = No information available

## Product Information

LD50/oral/rat =  
Value - Acute Toxicity = No information available

LD50/oral/mouse =  
Value - Acute Tox = No information available

LD50/dermal/rabbit  
Value - Acute Toxicity = No information available

LD50/dermal/rat  
VALUE - Acute Tox = No information available

LC50/inhalation/rat  
VALUE-Vapor = No information available  
VALUE-Gas = No information available  
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse  
VALUE-Vapor = No information available  
VALUE - Gas = No information available  
VALUE - Dust/Mist = No information available

## Symptoms

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause irritation of the respiratory tract and mucous membranes irritation.

**Ingestion** Larger doses may lead to iron poisoning and cause gastrointestinal tract irritation (gastroenteritis) with nausea, retching & vomiting, abdominal pain, hypermotility, diarrhea, colic or constipation, and black stool. Liver damage and kidney failure have also been reported from iron poisoning. Pink urine discoloration is a strong indicator of iron poisoning. It may also affect behavior/Central Nervous System (seizures/convulsions, lethargy, drowsiness, hyporeflexia, coma), respiration, cardiovascular system (weak pulse, tachycardia, hypotension), metabolism (metabolic acidosis), and blood (leukocytosis). Note: Toxicity information was extrapolated from Ferric sulfate, Ferrous sulfate, and Iron.

**Aspiration hazard** No information available.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** Prolonged eye contact may cause a brownish discoloration of the eyes. Ingestion: Repeated high exposures may lead to iron build-up in the body (particularly in the liver, spleen, and lymphatic system) causing nausea, vomiting, stomach pain,

constipation or diarrhea, black bowel movements, mild lethargy, irritability, leukocytosis, normocytic anemia, hemochromatosis in the Kupfer cells of the liver or in the reticuloendothelial cells of the bone marrow. Damage may occur to the spleen, lymphatic system, and liver (cirrhosis, hemsiderosis). Fibrosis or other damage may also occur to the pancreas. Symptoms may include hypoglycemia, hyperglycemia. Note: Toxicity information was extrapolated from Ferric Sulfate, Ferrous Sulfate and Iron).

**Sensitization:** No information available.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Ferric Sub sulfate	1310-45-8	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility in soil** No information available

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

## Disposal Methods

### **Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

### **Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ferric Subsulfate	1310-45-8	None	None	None	None

## 14. TRANSPORT INFORMATION

### **DOT**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class** No information available  
**Subsidiary Class** No information available  
**Packing group:** No information available  
**Emergency Response Guide Number** No information available  
**Marine Pollutant** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions** No Information available  
**Symbol(s):** No information available  
**Description:** No information available

### **TDG (Canada)**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant** No Information available  
**Description:** No information available

### **ADR**

**UN Number** Not regulated  
**Proper Shipping Name:** No information available  
**Transport hazard class(es)** No information available  
**Packing group** No information available  
**Subsidiary Risk:** No information available

### **IMDG**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant** No information available

### **RID**

**UN Number** Not Regulated  
**Proper Shipping Name:** No information available  
**Transport hazard class(es)** No information available  
**Subsidiary Risk:** No information available



Packing group No information available

ICAO (air)

UN-No: Not Regulated  
Proper Shipping Name: No information available  
Hazard Class No information available  
Subsidiary Risk: No information available  
Packing Group: No information available

IATA

UN Number Not Regulated  
Proper Shipping Name: No information available  
Transport hazard class(es) No information available  
Subsidiary Risk: No information available  
Packing group No information available  
Precautionary Statements - Response No information available  
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Ferric Sub sulfate	1310-45-8	Present ACTIVE	Present KE-21089	Not present	Not present	Not listed	Present	Present 215-179-2

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Ferric Sub sulfate	1310-45-8	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Ferric Sub sulfate	1310-45-8	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Ferric Sub sulfate	1310-45-8	Not Applicable	Not Applicable

## Canada

### WHIMIS 2015 - GHS Classifications

WHIMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Ferric Sub sulfate	1310-45-8	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Ferric Sub sulfate	1310-45-8	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Ferric Sub sulfate	1310-45-8	Not listed

### EU Classification

#### EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Ferric Sub sulfate	1310-45-8	

#### EU - CLP (1272/2008)

#### R-phrase(s)

not determined (not applicable)

#### S -phrase(s)

none

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Ferric Sub sulfate	1310-45-8		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

#### Indication of danger:

None

## 16. OTHER INFORMATION

Preparation Date: 04/09/2015  
Revision date: 8/9/2019  
Prepared by: Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**