

Issue Date 14-Apr-2015

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Version 1

**1. IDENTIFICATION**

**Product identifier**

**Product Name** Ferric Sulfate n-Hydrate, Reagent Grade

**Other means of identification**

**Product Code** 2700

**Synonyms** Iron (II) sulfate; Iron persulfate

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

**Recommended Use** Laboratory chemicals.

**Uses advised against** No information available

**Details of the supplier of the safety data sheet**

**Manufacturer Address**

Harrell Industries, Inc.  
2495 Commerce Drive  
Rock Hill, SC 29730

[www.harrellindustries.com](http://www.harrellindustries.com)

**Emergency telephone number**

**Company Phone Number** 803-327-6335

**Fax Number** 803-327-7808

**24 Hour Emergency Phone Number** 800 633-8253 (PERS)

**2. HAZARDS IDENTIFICATION**

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

**Label elements**

**Emergency Overview**

**Danger**

**Hazard statements**

Corrosive to metals.  
Harmful if swallowed  
Causes skin irritation  
Causes serious eye damage



Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wash clothing after use.

**Appearance** yellow/ brown granular or powder      **Physical state** Powder or crystals      **Odor** Odorless

**Precautionary Statements - Prevention**

Keep only in original container  
Wash hands thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear eye/face protection  
Wear protective gloves

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Not applicable

Unknown acute toxicity

80% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance****Synonyms**

Iron (II) sulfate; Iron persulfate.

**Formula**

Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>.H<sub>2</sub>O

Chemical Name	CAS No.	Weight-%
Ferric Sulfate	15244-10-7	73
Water	7732-18-5	20-30

### 4. FIRST AID MEASURES

**Description of first aid measures**

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician if irritation occurs.

**Skin contact** Wash skin with soap and water. Wash contaminated clothing before reuse.

**Inhalation** Move victim to fresh air. Administer oxygen if breathing is difficult. Get medical attention.

**Ingestion** Induce vomiting immediately as directed by medical personnel.

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

**Symptoms** No information available.

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

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Foam. Water spray (fog). Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

No information available.

**Explosion data****Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None.**Protective equipment and precautions 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**

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal equipment. Vacuuming or wet sweeping may be used to avoid dust disposal.

**Environmental precautions****Environmental precautions**

See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up****Methods for containment**

Keep in tightly closed light resistance containers, store in a cool, dry, well-ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residue.

**Methods for cleaning up**

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

**7. HANDLING AND STORAGE****Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes or clothing. Avoid creating dust.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials**

None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferric Sulfate 15244-10-7	TWA: 1 mg/m <sup>3</sup> Fe	(vacated) TWA: 1 mg/m <sup>3</sup> Fe	TWA: 1 mg/m <sup>3</sup> Fe

**Appropriate engineering controls****Engineering Controls**Showers  
Eyewash stations  
Ventilation systems.**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available. Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear protective gloves and clean body-covering clothing.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Powder or crystals	<b>Odor</b>	Odorless
<b>Appearance</b>	yellow/ brown granular or powder	<b>Odor threshold</b>	No information available
<b>Color</b>	yellow/brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	
<b>Melting point / freezing point</b>	No information available	
<b>Boiling point / boiling range</b>	No information available	
<b>Flash point</b>	No information available	
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	
<b>Relative density</b>	3.097 anhydrous	
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	3999.88 as anhydrous
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under ordinary conditions of use and storage. Hygroscopic.

### Possibility of Hazardous Reactions

None under normal processing.

**Conditions to avoid**

Heat, light and moisture.

**Incompatible materials**

None known based on information supplied.

**Hazardous Decomposition Products**

Oxides of sulfur and the contained metal.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

May be harmful by inhalation, ingestion, or skin absorption. 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, and nausea. After apparent recovery a person may experience complications that lead to acute liver necrosis.

**Inhalation**

May cause irritation of respiratory tract.

**Eye contact**

Risk of serious damage to eyes.

**Skin contact**

Irritating to skin.

**Ingestion**

No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-

**Information on toxicological effects****Symptoms**

No information available.

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

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

No information available.

**Reproductive toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**Numerical measures of toxicity - Product Information****12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life

80% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility.
<b>Contaminated packaging</b>	Do not reuse container.

### 14. TRANSPORT INFORMATION

**DOT** Not regulated

### 15. REGULATORY INFORMATION

#### International Inventories

<b>TSCA</b>	Does not comply
<b>DSL/NDSL</b>	Does not comply
<b>EINECS/ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Complies
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Complies

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

#### US Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

##### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

##### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ferric Sulfate 15244-10-7	-	-	X
Water 7732-18-5	-	-	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b><u>NFPA</u></b>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties -
<b><u>HMIS</u></b>	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

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**Revision Note**

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**