

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier.**

**Product Name** FeRROMEC® AC Liquid Iron 15-0-0

**Other means of identification**

**Product Code** PBI FP 9701016

**Product Size** 55 U. S. Gal.

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

**Recommended Use** Fertilizers

**Uses advised against** No information available

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

**Supplier Address**  
 PBI-Gordon Corporation  
 P.O. Box 860350  
 Shawnee, KS 66286

**Company Name**  
 PBI-Gordon Corporation  
 P.O. Box 860350  
 Shawnee, KS 66286

**Manufacturer**  
 PBI-Gordon Corporation  
 P.O. Box 860350  
 Shawnee, KS 66286

**Emergency telephone number**

**24 Hour Emergency Phone Number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**


**OSHA Regulatory Status**

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

Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation Category	Category 2
Serious eye damage/eye irritation	Category 2A

**Label elements**

**Emergency Overview**

<p><b>Signal word</b> Warning</p> <p><b>Hazard statements</b></p> <ul style="list-style-type: none"> <li>• Harmful if swallowed</li> <li>• Causes skin irritation</li> <li>• Causes serious eye irritation</li> </ul> 	<p><b>Appearance</b> Liquid</p>	<p><b>Physical state</b> Liquid</p>	<p><b>Odor</b> No discernible odor</p>
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**Precautionary Statements - Prevention**

Do not eat, drink or smoke when using this product

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/eye protection/face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF ON SKIN: Wash with plenty of water and soap  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Have the product label with you when calling a poison control center or doctor or going in for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

**Other information**

Not applicable.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS-No	Weight-%
Urea	57-13-6	32.61
Ferrous sulfate heptahydrate	7782-63-0	29.83

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Get medical attention immediately if symptoms occur. Remove to fresh air.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**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

<b><u>Suitable Extinguishing Media</u></b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b><u>Unsuitable extinguishing media</u></b>	No information available.
<b><u>Specific hazards arising from the chemical</u></b>	In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors.
<b><u>Explosion data</u></b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b><u>Special protective equipment for fire-fighters</u></b>	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. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

### **Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas Do not flush into surface water or sanitary sewer system Prevent further leakage or spillage if safe to do so Prevent product from entering drains Avoid release to the environment Collect spillage Dispose of contents/container to an approved waste disposal plant See Section 12 for additional ecological information

**Other information** Refer to protective measures listed in Sections 7 and 8.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### **Precautions for safe handling**

**Advice on safe handling** Take off contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

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

**Storage Conditions** Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Undiluted product is corrosive to mild steel, aluminum, and brass and must be stored and/or shipped in fiberglass, polypropylene, or stainless steel.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Control parameters**

### **Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferrous sulfate heptahydrate 7782-63-0	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

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

#### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** Tight sealing safety goggles.

**Hand protection** Chemical resistant gloves.

**Skin and body protection** Wear long-sleeved shirt, long pants, socks and shoes.

**Respiratory protection** 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.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

**Physical state** Liquid  
**Appearance** Liquid  
**Color** Green  
**Odor** No discernible odor  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	2.0 - 2.5	
<b>Melting point/freezing point</b>	-5 °C / 23 °F	
<b>Boiling point / boiling range</b>	> 121 °C / 212 °F	
<b>Flash point</b>	> 96 °C / 199 °F	
<b>Evaporation rate</b>	< 1	
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	<17 mm Hg	
<b>Vapor density</b>	>1	
<b>Specific Gravity</b>	1.32	
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known

#### Other Information

**Liquid Density** 11.0 pounds/gallon  
**Bulk density** No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No information available.

**Stability**

Stable under recommended storage conditions

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Will not occur.

**Conditions to avoid**

Keep out of reach of children. Exposure to air over prolonged periods.

**Incompatible materials**

Strong bases. Strong oxidizing agents. Avoid contact with unfinished wood products, painted surfaces, or concrete as this product may cause staining.

**Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information****Inhalation** May cause irritation of respiratory tract.**Eye contact** Causes serious eye irritation.**Skin contact** Causes skin irritation.**Ingestion** Harmful if swallowed.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Urea 57-13-6	= 8471 mg/kg ( Rat )	-	-

**Symptoms related to the physical, chemical and toxicological characteristics****Symptoms** No information available.**Acute toxicity****Numerical measures of toxicity - Product Information****The following values are calculated based on chapter 3.1 of the GHS document**

<b>ATEmix (oral)</b>	1535 mg/kg
<b>ATEmix (dermal)</b>	40526 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	2.9 mg/L

**Unknown Toxicity**

0 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Target Organ Effects</b>	Teeth, Liver, Respiratory system, Eyes, Skin, Gastrointestinal tract (GI).

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Urea 57-13-6	-	16200 - 18300: 96 h Poecilia reticulata mg/L LC50	-	3910: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste from residues/unused products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse empty containers.

**14. TRANSPORT INFORMATION**

**Note:** **Products under 305 gallons not regulated by DOT. Below are designations for products over 305 gallons. See RQ**

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**ICAO (air)** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**15. REGULATORY INFORMATION**

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**International Inventories**

<b>TSCA</b>	Listed
<b>DSL/NDSL</b>	Not Listed
<b>EINECS/ELINCS</b>	Not Listed
<b>ENCS</b>	Listed
<b>IECSC</b>	Listed
<b>KECL</b>	Not Listed
<b>PICCS</b>	Listed
<b>AICS</b>	Listed

**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**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ferrous sulfate heptahydrate 7782-63-0	-	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Ferrous sulfate heptahydrate 7782-63-0	1000 lb	-

**US State Regulations**

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

**US State Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ferrous sulfate heptahydrate 7782-63-0	-	X	X
Trade Secret	X	X	X

**16. OTHER INFORMATION**

<u>NFPA</u>	Health hazards 3	Flammability 1	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 3	Flammability 1	Physical hazards 0	Personal protection X

Disclaimer

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**End of Safety Data Sheet**