



Safety Data Sheet

1. Product Identifier and Company Identification

Product name	: Ferrous Chloride Solution	
HBCC SDS number	: CF02000	
Synonym	: Iron (II) Chloride, FeCl ₂ (Aqueous)	
Product use and Restrictions	: Refer to label or call	
Manufacturer	: Corporate Headquarters	Corporate Safety & Compliance
Contact Address	Hill Brothers Chemical Company 1675 North Main Street Orange, California 92867 714-998-8800 800-821-7234	Hill Brothers Chemical Company 7121 West Bell Road, Suite 250 Glendale, Arizona 85308 623-535-9955 - Office 623-535-9944 - Fax
Emergency telephone Number (Chemtrec)	: 800-424-9300	
Website	: http://hillbrothers.com	

2. Hazard Identification

Classification : Acute Oral Toxicity – Category 4
Serious Eye Damage/Eye Irritation – Category 1
Corrosive to Metals – Category 1

Signal Word : Danger

Pictogram(s) :



Hazard Statements : H290: May be corrosive to metals.
H302: Harmful if swallowed.
H318: Causes serious eye damage.

Precautionary Statements

Response : P301+P312+P330: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Prevention : P280: Wear protective gloves/protective clothing/eye protection/face protection.
P270: Do not eat, drink or smoke when using this product.
P264: Wash hands thoroughly after handling.
P391: Collect spillage.

Storage : P406: Store in a corrosive resistant container with a resistant inner liner. P402+P403+P235: Store in a dry place. Store in a well-ventilated place. Keep cool.

Disposal : P501: Dispose of contents and container in accordance with all local/regional/national/international regulation.

3. Composition/Information on Ingredients

CAS Number	Ingredient Name	Weight %
7758-94-3	Ferrous Chloride	<37
7705-08-0	Ferric Chloride	<1
7647-01-0	Hydrochloric Acid	<5

4. First Aid Measures

Summary of First Aid Measures

Ingestion : **Do Not Induce Vomiting** - Dilute slowly with 1-2 glasses of water or milk. SEEK MEDICAL ATTENTION IMMEDIATELY.

Inhalation : If inhaled in large amounts, move exposed person to fresh air. Administer artificial respiration if necessary. Have qualified medical personnel administer oxygen.

Skin : Immediately remove contaminated clothing. Wash off in flowing water or shower with soap and water. Contact a physician if irritation continues.

Eyes : Immediate and continuous flushing with flowing water for at least 15 minutes. Prompt medical consultation is essential.

Medical Conditions : N/A

Effects of Overexposure : Irritating to skin, eyes, and mucous membranes. Accidental ingestion may cause gastrointestinal irritation, nausea and vomiting.

Summary of Acute Health Hazards : N/A

Ingestion : Can be harmful or fatal if swallowed, resulting in severe irritation and/or burns to the gastrointestinal tract.

Inhalation : May be irritating to mucous membranes.


Skin : May be irritating to the skin.

Eyes : May be irritating to the eyes.

Note to Physicians : N/A

Summary of Chronic Health : N/A

5. Fire Fighting Measures

Extinguishing	: N/A
Special Exposure Hazards	: Thermal Decomposition can produce FeCl_3 , Fe_2O_3 , HCl , or Cl_2 .
Special Protective	: N/A
Fire Fighting Procedures	: Wear self-contained breathing apparatus.
NFPA Rating	: Health - 2 Flammability - 0 Instability - 1
	
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme	
Uniform Fire Code Rating	: N/A

6. Accidental Release Measures

Personal Precautions	: N/A
Emergency Procedures	: Wear self-contained breathing apparatus and chemical splash suit in emergency situations.
Methods of Containment And Clean-Up	: Ferrous Chloride is listed as Class B under the Superfund laws. Spills of Ferrous Chloride in excess of 100 lbs. (30 gallons of 30%) must be reported under CERCLA. Dike and contain spill. Do not let ferrous chloride get into sewer system. Use proper absorbents.

7. Handling and Storage

Safe Handling	: Ferrous oxidizes to ferric with air.
Storage	: Corrosive to many metals, do not store in metal containers.
Work/Hygienic Practices	: Wash hands thoroughly with soap and water before eating, drinking, smoking, and using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

Ventilation : General and local ventilation as situation dictates. Use mechanical ventilation to control mist if necessary.

8. Exposure Controls/Personal Protection

Occupational Exposure :

Chemical Name: Ferrous Chloride				
Exposure Limits (TWAs) in Air				
CAS Number	Chemical	ACGIH TLV	OSHA PEL	STEL
7758-94-3	Ferrous Chloride	1 mg/m ³	1 mg/m ³	N/A
7705-08-0	Ferric Chloride	1 mg/m ³	1 mg/m ³	N/A
7647-01-0	Hydrochloric Acid	7 mg/m ³	7.5 mg/m ³	N/A

Protective Equipment : Use of rubber gloves and protective suits may be needed where splash or spray hazards exist.

Eye Protection : Use chemical goggles. Where splash hazard exists wear full face shield.

Respiratory : Follow OSHA regulations, use NIOSH approved respirators and cartridges as needed.

9. Physical and Chemical Properties

Appearance: Clear greenish liquid	Odor: Faint hydrochloric acid odor
Odor Threshold:	pH: <2
Melting Point/Freezing Point: N/A	Initial Boiling Point/Range: 104° C (219° F)
Flash Point: N/A	Evaporation Rate (BuAc=1): N/A
Flammability: N/A	Lower/Upper Explosive Limit: N/A
Vapor Pressure (mmHg): N/A	Vapor Density (Air=1): N/A
Specific Gravity @ 20° C: 1.18-1.42	Solubility in Water: Soluble
Decomposition Temperature: N/A	Density at 25° C (77° F): 9.8 -11.8 lbs/gal
% Volatiles: N/A	
Molecular Weight: 126.75 g/mol	VOC: N/A

10. Stability and Reactivity

Reactivity : N/A

Chemical Stability : Stable under normal use and storage.

Possibility of Hazardous Reactions or Polymerizations : None

Conditions to Avoid : N/A

Incompatible Materials : Ferrous Chloride may react with ethylene oxide, potassium and sodium. Will react with metals and alkaline materials. Is corrosive to all common metals.

Hazardous Decomposition Products : Ferric Chloride, ferric oxide, hydrogen chloride or chlorine may be formed under thermal decomposition.

11. Toxicological Information

Acute and Chronic Effects : N/A

Routes of Exposure

Inhalation : Yes
Ingestion : Yes
Skin : Yes
Eyes : Yes

Symptoms related to Physical, Chemical & Toxicological Characteristics : N/A

Numerical Measures of Toxicity : N/A

Chronic Toxicity : N/A

Carcinogenicity : N/A

Product Name:					
ACGIH	IARC	EPA	NIOSH	NTP	OSHA
No	No	No	No	No	No

TARGET ORGANS : N/A

12. Ecological Information

Ecotoxicity : N/A

Persistence and Degradability : N/A

Bioaccumulative Potential :

Product/Ingredient	Log _{pow}	BCF	Potential
-	-	-	-

Mobility in Soil : N/A

13. Disposal Considerations

Disposal of Container : Waste ferrous chloride is an EPA hazardous waste due to corrosivity (D002) and must be disposed of at an EPA-approved waste disposal facility. Dispose of in accordance with federal, state and local environmental laws.

14. Transport Information

UN# : NA1760
Proper Shipping Name : Ferrous Chloride, Solution
Hazard Class/Division : 8
Packing Group : II
Marine Pollutant : No
Special Provisions : B3, IB2, T11, TP2, TP27
Emergency Response Guidebook : 2012 ERG, Guide 154, pages 246-247
Placard Advisory :



15. Regulatory Information

SARA 302 Extremely Hazardous Substances (EHS) : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) under Section 302 of EPCRA.

SARA 304 Extremely Hazardous Substances (EHS) Release Notification : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) which, if released to the environment in quantities at or above the substance's Reportable Quantity (RQ), would require reporting to the SERC and LEPC under Section 304 of EPCRA.

SARA 311/312 Hazards :

SARA 311/312 Hazards				
Acute	Chronic	Flammability	Pressure	Reactivity
Yes	No	No	No	No

SARA 313 Reportable Chemicals : No chemical in this product is subject to annual emissions, transfers, or waste management reporting under the Community-Right-to-Know provisions of EPCRA Section 313, also known as the Toxic Release Inventory (TRI) Report or Form R.

CERCLA Hazardous : This product contains the following CERCLA hazardous substance(s) subject to the National Response Center (NRC) reporting requirements if released to the environment in quantities greater than or equal to the substance's CERCLA Reportable Quantity (RQ).
 Ferrous Chloride, CAS #7758-94-3 CERCLA RQ = 100 lb. (45.4 kg.)

Clean Air Act (CAA) Section 112(r) Air Pollutants : No chemical in this product is listed as an air pollutant under the U.S. Clean Air Act, Section 112(r) (40 CFR 61).

California Prop 65 Chemicals : This product does not contain any chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Hazard Label Warning : This product requires the following hazard label warning:
Corrosive, Class 8

TSCA (Toxic Substances Control Act) : All chemical substances in this product are listed on the U.S. TSCA Inventory List.

16. Other Information

Revision date : 05/05/2015
Supersedes : 05/25/2011
First Issue : 11/14/1997

Chemical Family/Type : N/A

Section(s) changed since last revision : MSDS to First Issue SDS Conversion

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This SDS has been prepared in accordance with the Globally Harmonized System of Chemical and Labeling of Chemicals (GHS) Fifth Edition and the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The SDS information is based on sources believed to be reliable. Available data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control; **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks and exercise appropriate precautions for protection of employees and others prior to use.