

**HAVILAND PRODUCTS COMPANY  
SAFETY DATA SHEET**



**Section 1: Identification**

Product Name: Ferric Chloride    Product Code:H000200  
 Haviland Products Company  
 421 Ann Street NW  
 Grand Rapids, MI 49504  
 (616) 361-6691

**Emergency Phone**  
 CHEMTREC (800) 424-9300  
 CHEMTREC International (703) 527-3887

Supplied by:



4621 Technology Drive, Golden, CO 80403  
 ph: (303) 762-0800 fax: (303) 762-1240

Part #: F1031

Product Use: Water treatment chemical  
 Not recommended for: No data available

**Section 2: Hazard(s) Identification**

**GHS Ratings:**

Corrosive to metals	1	Corrosive to metals
Oral Toxicity	Acute Tox. 4	Oral>300+<=2000mg/kg
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
Eye corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Aquatic toxicity	A1	Acute toxicity <= 1.00 mg/l

**GHS Hazards**

H290	May be corrosive to metals
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H400	Very toxic to aquatic life

**GHS Precautions**

P234	Keep only in original container
P264	Wash face, hands, and any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P310	Immediately call a POISON CENTER or doctor/physician
P321	Specific treatment (see first aid treatment on SDS)
P330	Rinse mouth
P362	Take off contaminated clothing and wash before reuse
P390	Absorb spillage to prevent material damage
P391	Collect spillage
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302+P352	IF ON SKIN: Wash with soap and water

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P332+P313	If skin irritation occurs: Get medical advice/attention
P406	Store in a corrosive resistant container with a resistant inner liner
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

**Danger**



**Section 3: Composition/Information on Ingredients**

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Iron trichloride 7705-08-0 30 to 40%			
Hydrogen chloride 7647-01-0 1 to 5%		2 ppm Ceiling	NIOSH: 5 ppm Ceiling; 7 mg/m3 Ceiling

**Section 4: First-aid Measures**

**Inhalation**

Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

**Eye Contact**

Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

**Skin Contact**

Remove contaminated clothing. Wash skin with soap and water. Get medical attention. Wash clothing separately and clean shoes before reuse.

**Ingestion**

If swallowed, do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**Section 5: Fire-fighting Measures**

LEL:

UEL:

**Extinguishing Media**

Use media suitable for the surrounding fires.

**Specific Hazards Arising from the Chemical**

Reacts with most metals, especially when dilute: Hydrogen gas release (Extremely flammable, explosive).

**Special Protective Equipment and Precautions for Firefighters**

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

**Section 6: Accidental Release Measures****Spill and Leak Procedures**

Wear adequate personal protective equipment. Prevent entry into sewers and confined areas. Dike if possible. Keep unnecessary people away, isolate hazard area and deny entry. Absorb spill with sand or non-combustible dry material and collect in appropriate container for disposal. Flush area with water.

**Section 7: Handling and Storage****Handling Procedures**

Use with adequate ventilation. Avoid breathing dusts, mists, and vapors. Do not get in eyes, on skin, or on clothing. Wear eye protection and protective clothing. Wash thoroughly after handling.

**Storage Requirements**

Keep away from heat, sparks, and flame. Store containers in a cool, well ventilated place. Keep container closed when not in use. Protect from direct sunlight.

**Section 8: Exposure Control/Personal Protection**

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Iron trichloride 7705-08-0			
Hydrogen chloride 7647-01-0		2 ppm Ceiling	NIOSH: 5 ppm Ceiling; 7 mg/m3 Ceiling

**ENGINEERING CONTROLS:** Provide ventilation sufficient to maintain exposure below the recommended limits.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

**SKIN PROTECTION:** Wear impervious protective gloves. Wear protective gear as needed - apron, suit, boots.

**EYE PROTECTION:** Wear safety glasses with side shields (or goggles) and a face shield.

**OTHER PROTECTIVE EQUIPMENT:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**HYGIENIC PRACTICES:** Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

**Section 9: Physical and Chemical Properties**

<p><b>Vapor Density:</b> Unknown</p> <p><b>Density:</b> Unknown</p> <p><b>Freezing point:</b> Unknown</p> <p><b>Boiling range:</b> 106°C (223°F)</p> <p><b>Evaporation rate:</b> Unknown</p> <p><b>Explosive Limits:</b> Unknown</p> <p><b>Autoignition temperature:</b> Unknown</p>	<p><b>pH:</b> Less than 1</p> <p><b>Melting point:</b> Unknown</p> <p><b>Solubility:</b> 100%</p> <p><b>Flash point:</b> Unknown</p> <p><b>Flammability:</b> Unknown</p> <p><b>Specific Gravity:</b> 1.47</p> <p><b>Decomposition temperature:</b> Unknown</p>
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<b>Viscosity:</b> Unknown <b>Appearance:</b> Red-brown liquid <b>Vapor Pressure:</b> 40 mm Hg @ 20°C	<b>Grams VOC less water:</b> Unknown <b>Odor:</b> Slightly acidic odor <b>Odor threshold:</b> Unknown
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**Section 10: Stability and Reactivity**

**Chemical Stability:**

STABLE

**Incompatible Materials**

Metals, bases, halocarbons, acids, and combustible materials.

**Conditions to Avoid**

Excessive heat and sources of ignition.

**Hazardous Decomposition Products**

Thermal decomposition: hydrochloric acid. Contact with metals may evolve flammable hydrogen gas.

**Hazardous Polymerization**

Hazardous polymerization will not occur.

**Section 11: Toxicology Information**

**Mixture Toxicity**

Oral Toxicity LD50: 979mg/kg

Inhalation Toxicity LC50: 56mg/L

**Component Toxicity**

**Health Effects**

Inhalation causes irritation to mucous membranes, difficulty breathing. Eye or skin contact causes irritation and possibly burns. Ingestion causes irritation of the mouth and stomach.

**Routes of Entry:**

Inhalation

Ingestion

Skin contact

Eye contact

**Target Organs**

Eyes

Skin

Respiratory System

**Effects of Overexposure**

Corrosive! Inhalation, ingestion or skin contact with material may cause severe injury or death.

Causes eye damage and skin burns. Mist and vapor causes respiratory tract and mucous

membrane burns. Harmful if inhaled. Harmful or fatal if swallowed.

**GHS: CARCINOGENICITY:**

Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC, or OSHA.

CAS Number

Description

% Weight

Carcinogen Rating

**Section 12: Ecological Information**

**Component Ecotoxicity**

Iron trichloride

96 Hr LC50 *Lepomis macrochirus*: 20.26 mg/L [semi-static]; 96 Hr LC50  
*Pimephales promelas*: 20.95 - 22.56 mg/L [semi-static]  
48 Hr EC50 *Daphnia magna*: 27.9 mg/L; 48 Hr EC50 *Daphnia magna*: 9.6 mg/L  
[Static]

**Section 13: Disposal Considerations**

Dispose of in accordance with local, state and federal regulations.

**Section 14: Transportation Informations**

Refer to Bill of Lading or container label for DOT or other transportation hazard classification, if any .

**Section 15: Regulatory Information**

**CERCLA/SARA Hazardous Substances**

7647-01-0 Hydrogen chloride

7705-08-0 Iron trichloride

**DEA List I and II Chemicals**

7647-01-0 Hydrogen chloride

**OSHA Process Safety Management Highly Hazardous Chemicals**

7647-01-0 Hydrogen chloride

**U.S. Clean Air Act Toxic and Flammable Substances**

7647-01-0 Hydrogen chloride

**SARA 313**

7647-01-0 Hydrogen chloride

**TSCA 8(b) Inventory**

7647-01-0 Hydrogen chloride

7705-08-0 Iron trichloride

**Country**

**Regulation**

**All Components Listed**

**Section 16: Other Information**

Date Prepared: 6/12/2015

Reviewer Revision

**Disclaimer**

The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.

