LTS Research Laboratories, Inc.
Safety Data Sheet
Iron chloride

1. Product and Company Identification

Trade Name:	Iron chloride
Chemical Formula:	$FeCl_3$
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	37 Ramland Road
City:	Orangeburg
State:	New York
Zip Code:	10962
Country:	USA
Tel #:	855-587-2436 / 845-lts-chem
24-Hour Emergency Contact:	800-424-9300 (US & Canada) +1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger

Hazard Statements:
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage

Precautionary Statements:
P280 Wear protective gloves/clothing/eye protection
P305+P351 If in eyes: Rinse cautiously with water for several minutes.
P309+P310 If exposed or if you feel unwell, immediately call a poison center or doctor

HMIS Health Ratings (0-4):

Health:	3
Flammability:	0
Physical:	1

3. Composition

Chemical Family:	Salt
Additional Names:	Ferric chloride, Iron trichloride, Iron(III) chloride, Molysite, Flores martis

Iron chloride ($FeCl_3$):

Percentage:	100 wt%
CAS #:	7705-08-0
EC #:	231-729-4

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	N/A
Threshold Limit Value:	1 mg/m^3 as Fe, long-term value
Special Equipment:	None
Respiratory Protection:	Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber, NBR 0.11mm thick.
Penetration time of glove material:	480 minutes
Eye Protection:	Full face protection, Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Green to black Purple to Red by transmitted light Yellow if hydrated Brown in solution
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	High, 480 g/L at 20 °C
pH	1.8 at 6 g/L, 20 °C
Boiling Point:	316 °C
Melting Point:	306 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.9 g/cc
Molecular weight:	162.21 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Water/moisture, Bases, Oxidizing agents, Metals
Incompatible Conditions:	Moisture
Hazardous Decomposition Products:	Hydrogen chloride (HCl), Iron oxides, Metal oxide fume

11. Toxicological Information

Potential Health Effects:	
Eyes:	May cause serious damage
Skin:	May cause severe burns
Ingestion:	Harmful; Strong corrosive effect on mouth and throat, danger of perforation of esophagus and stomach.
Inhalation:	May cause severe burns
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	316 mg/kg for rat by mouth
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	Medium
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	Do not allow undiluted product to reach ground water, or sewage

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation.

Hazard Class:	8 Corrosive substances
Packing Group:	III
UN Number:	UN1773
Proper Shipping Name:	Ferric chloride, anhydrous
Segregation group:	Acids

15. Regulatory Information

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	No

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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