

Safety Data Sheet

Iron (III) Chloride, 6-Hydrate

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Iron (III) Chloride, 6-Hydrate
Recommended Use: Science education applications
Synonyms: Ferric Chloride Hexahydrate, Iron Chloride, Iron Trichloride
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



May be corrosive to metals. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

GHS Classification:

Substance or mixture corrosive to metals Category 1, Serious Eye Damage/Eye Irritation Category 1, Skin Corrosion/Irritation Category 2, Hazardous to the aquatic environment - Acute Category 2, Hazardous to the aquatic environment - Chronic Category 2, Acute Toxicity - Oral Category 4

Acute Toxicity Dermal Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Gas Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Vapor Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Iron (III) Chloride, 6-Hydrate	10025-77-1	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.

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Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: Liberates hydrochloric acid fumes when damp.

Hazardous Combustion Products: Hydrogen chloride

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Absorb spillage to prevent material damage. Collect spillage.

Section 7 Handling and Storage

Handling: Keep only in original container. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Storage: Store in corrosive resistant/... container with a resistant inner liner. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Blue - Toxic. Store separately in a secured area.

Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Iron (III) Chloride, 6-Hydrate	1 mg/m ³ TWA (as Fe)	N/A	N/A	N/A

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Nitrile, Neoprene, Butyl rubber

Section 9 Physical Data

Formula: FeCl ₃ * 6H ₂ O	Vapor Pressure: No data available
Molecular Weight: 270.32	Evaporation Rate (BuAc=1): No data available
Appearance: Yellow Solid	Vapor Density (Air=1): No data available
Odor: No data.	Specific Gravity: 1.82
Odor Threshold: No data available	Solubility in Water: Soluble
pH: No data available	Log Pow (calculated): No data available
Melting Point: 37 C	Autoignition Temperature: No data available
Boiling Point: 280 - 285 C	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: No data available	Percent Volatile by Volume: No data available

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Section 10

Reactivity Data

Reactivity:	Mildly reactive - See below
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Exposure to moisture
Incompatible Materials:	Water, Alkali and Alkaline Metals, Caustics (bases)
Hazardous Decomposition Products:	Hydrogen chloride
Hazardous Polymerization:	Will not occur

Section 11

Toxicity Data

Routes of Entry	Inhalation and ingestion.
Symptoms (Acute):	Allergies, Tachycardia, Hypoxemia (low blood oxygen), Metabolic Acidosis
Delayed Effects:	Respiratory disorders Gastrointestinal,

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Iron (III) Chloride, 6-Hydrate	10025-77-1	Oral LD50 Rat 317 mg/kg	Dermal LD50 Rabbit > 2000 mg/kg	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	10025-77-1	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity:	No evidence of a mutagenic effect.
Teratogenicity:	No evidence of a teratogenic effect (birth defect).
Sensitization:	No evidence of a sensitization effect.
Reproductive:	No evidence of negative reproductive effects.
Target Organ Effects:	
Acute:	Skin, Blood, Cardiovascular system
Chronic:	Blood, Liver

Section 12

Ecological Data

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	This material is expected to have very high mobility in soil. It does not absorb to most soil types.
Persistence:	Dissolved into water
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Iron (III) Chloride, 6-Hydrate	10025-77-1	Aquatic LC50 (96h) Fathead Minnow 21.84 MG/L Aquatic EC50 (48h) Daphnia 9.6 MG/L

Section 13

Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	If discarded, this product is considered a RCRA corrosive waste, D002.

Section 14

Transport Information

Ground - DOT Proper Shipping Name:

Air - IATA Proper Shipping Name:

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UN3260
CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
(Iron (III) Chloride, 6-hydrate)
Class 8
P.G. III

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Section 15

Regulatory Information

TSCA Status: A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Iron (III) Chloride, 6-Hydrate	10025-77-1	No	No	No	No	No

California Prop 65:

No California Proposition 65 ingredients

Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health