

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

Product identifier

Product name Sulfide Reagent B

Other means of identification

Product Code(s) V-4459

UN-No 2582

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals. Industrial (not for food or food contact use). Use as a laboratory reagent.

Details of the supplier of the safety data sheet

Manufacturer Address

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748

Emergency telephone number

24 Hour Emergency Number (CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

EMERGENCY OVERVIEW

DANGER

Hazard statements

Harmful if swallowed. Causes severe skin burns and eye damage.



Appearance dark amber

Physical state liquid

Odor Slight acidic

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not taste or swallow. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Keep out of the reach of children.

Immediately call a POISON CENTER or physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth IF SWALLOWED Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Other Hazards

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Iron (III) chloride hexahydrate	10025-77-1	25

4. FIRST AID MEASURES**First Aid Measures**

General advice	Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Seek immediate medical attention/advice.
Inhalation	Move to fresh air in case of accidental inhalation of vapors. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.
<u>Self-protection of the first aider</u>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. See section 8 for more information.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO₂, water spray or alcohol-resistant foam.

Protective equipment and precautions for firefighters

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. Use personal protective equipment. See section 8. Avoid contact with skin, eyes, and inhalation of vapors.

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE**Precautions for safe handling**

Handling Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not taste or swallow. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature. Keep away from direct sunlight. Store away from incompatible materials. Keep out of the reach of children.

Incompatible Products Metals. Bases. Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Iron (III) chloride hexahydrate 10025-77-1	TWA: 1 mg/m ³	-	TWA: 1 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves/clothing. Gloves & Lab Coat.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state liquid
Appearance dark amber
Odor Slight acidic

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	acidic	
Melting point / freezing point	No information available	
Boiling point / boiling range	230 °C	
Flash point	No information available	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point No information available
Molecular weight No information available
VOC Content (%) No information available
Density No information available
Bulk density No information available

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.
Hazardous polymerization Hazardous polymerization does not occur.
Conditions to avoid Excessive heat. Incompatible products.
Incompatible materials Metals. Bases. Oxidizing agents.
Hazardous decomposition products Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Iron (III) chloride hexahydrate 10025-77-1	= 900 mg/kg (Rat) = 316 mg/kg (Rat) = 450 mg/kg (Rat)	Not Established	Not Established

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Iron (III) chloride hexahydrate 10025-77-1	Not Established	Not Established	Not Established	Not Established

Chronic toxicity May cause adverse liver effects.

ATEmix (oral) 1264

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Iron (III) chloride hexahydrate 10025-77-1	Not Established	20.95 - 22.56: 96 h Pimephales promelas mg/L LC50 semi-static 20.26: 96 h Lepomis macrochirus mg/L LC50 semi-static 75.6: 96 h Gambusia affinis mg/L LC50 static	27.9: 48 h Daphnia magna mg/L EC50 9.6: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Iron (III) chloride hexahydrate 10025-77-1	-4

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

Contaminated packaging

Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Iron (III) chloride hexahydrate 10025-77-1	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Iron (III) chloride hexahydrate 10025-77-1	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Iron (III) chloride hexahydrate 10025-77-1	-

14. TRANSPORT INFORMATION

DOT

Proper shipping name FERRIC CHLORIDE SOLUTION
UN-No 2582
Hazard Class 8
Packing group III
Reportable Quantity (RQ) 1000

IATA

Proper shipping name FERRIC CHLORIDE SOLUTION
UN-No 2582
Hazard Class 8

Packing group III

IMDG/IMO

Proper shipping name FERRIC CHLORIDE SOLUTION
 UN-No 2582
 Hazard Class 8
 Packing group III

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Does not comply
 EINECS/ELINCS Does not comply
 ENCS Does not comply
 IECSC Complies
 KECL Does not comply
 PICCS Complies
 AICS Complies

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

Chemical name	SARA 313 - Threshold Values %
Iron (III) chloride hexahydrate 10025-77-1	Not Established

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard Yes
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as 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
Iron (III) chloride hexahydrate 10025-77-1	Not Established	Not Established	Not Established	Not Established

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	CERCLA/SARA RQ	RQ
Iron (III) chloride hexahydrate 10025-77-1	1000 lb	Not Established	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations**California Proposition 65**

Chemical name	California Proposition 65
Iron (III) chloride hexahydrate 10025-77-1	Not Established

U.S. State Right-to-Know Regulations

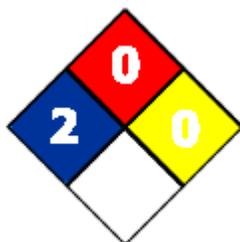
Chemical name	New Jersey	Massachusetts	Pennsylvania
Iron (III) chloride hexahydrate 10025-77-1	X	X	X

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**16. OTHER INFORMATION****NFPA**

Health hazard 2

Flammability 0

Instability 0

Physical and Chemical
Hazards N/A

Health Hazard	2
Fire Hazard	0
Reactivity	1

Prepared by

Regulatory Affairs Department

Issuing Date

Mar-23-2015

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Sep-03-2015

Reason for revision

(M)SDS sections updated 2

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Material Safety Data Sheet