

## 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) **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**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. Seek immediate medical attention/advice.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if victim is not breathing. Call a physician immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water. Drink plenty of water. Get medical attention. Never give anything by mouth to an unconscious person. Rinse mouth.
<b><u>Self-protection of the first aider</u></b>	Use personal protection recommended in Section 8. See section 8 for more information. 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.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO<sub>2</sub>, 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 protection recommended in Section 8. See section 8. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists.

**Environmental precautions** See Section 12 for additional Ecological Information.

#### **Methods and material for containment and cleaning up**

**Methods for cleaning up** Containerize spill material and hold for later disposal. If local regulations permit, dissolve with large volume of water, neutralize with alkaline material (sodium bicarbonate), then rinse to drain with excess water. Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water. Dispose of contents/containers in accordance with local regulations.

## **7. HANDLING AND STORAGE**

#### **Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Avoid contact with eyes, skin and clothing. 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. Protect from 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 <sup>3</sup>	-	TWA: 1 mg/m <sup>3</sup>

#### **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/protective clothing/eye protection/face protection. 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	acidic
Melting point / freezing point	No information available	
Boiling point / boiling range	230 °C / 446 °F	
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	Soluble	
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

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

### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to mucous membranes and respiratory tract.
<b>Eye contact</b>	Causes severe irritation and or burns.
<b>Skin contact</b>	Contact causes severe skin irritation and possible burns.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes. Can burn mouth, throat, and stomach. May cause adverse liver effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

#### 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

<b>Irritation</b>	Irritating to eyes, respiratory system and skin.
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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

**Unknown Aquatic Toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

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. Dispose of contents/containers in accordance with local regulations.

### 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

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Does not comply
<b>EINECS/ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Complies
<b>KECL</b>	Does not comply
<b>PICCS</b>	Complies
<b>AICS</b>	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**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	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	Not Established	Not Established	Not Established	Not Established

hexahydrate 10025-77-1				
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**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

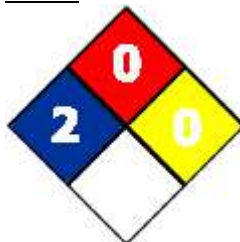
**U.S. State Right-to-Know Regulations**

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

**HMIS** Health hazard 2 Flammability 0 Stability 1



Health Hazard	<b>2</b>
Fire Hazard	<b>0</b>
Reactivity	<b>1</b>

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**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**