

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

**Product identifier**

**Product name** IRON REAGENT 2 POWDER

**Other means of identification**

**Product Code(s)** 4451  
**UN-No** 3260

**Recommended use of the chemical and restrictions on use**

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

**Details of the supplier of the safety data sheet**

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
Acute toxicity - Dermal	Category 4
Serious eye damage/eye irritation	Category 1

### EMERGENCY OVERVIEW

**DANGER**

**Hazard statements**

Harmful if swallowed. Harmful in contact with skin. Causes serious eye damage.



**Appearance** Gray

**Physical state** powder

**Odor** Slight Sulphurous

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or physician.  
IF ON SKIN: Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell. 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.

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool.

**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\*

Formula	*Proprietary denotes trade secret		
Chemical name	CAS No	Weight-%	
Zinc	Proprietary	2	
Sodium sulfite	7757-83-7	3	
2,2'-Bipyridine	366-18-7	8	
Sodium metabisulfite*	7681-57-4	87	

LaMotte Company proprietary formulation under the State of New Jersey Trade Secret Protection Law, assigned the NJTSRN 80100291-5074p, and may be disclosed only in a medical emergency

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
<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. Consult a physician if necessary.
<b>Inhalation</b>	Remove to fresh air. If symptoms arise, call a physician.
<b>Ingestion</b>	Drink plenty of water. Rinse mouth. Consult a physician if necessary.
<b><u>Self-protection of the first aider</u></b>	Use personal protection recommended in Section 8. 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.
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or 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** See section 8.

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

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

**Methods for containment** Sweep up in a manner that does not disperse dust and shovel into suitable containers for disposal. Dispose according to federal, state, and local regulations.

**Methods for cleaning up** Use personal protective equipment. Avoid dust formation. 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 away from incompatible materials. Keep out of the reach of children.

**Incompatible Products** Acids. Alkalis. Strong oxidizing agents.

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

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc	-	-	Not Established
Sodium sulfite 7757-83-7	-	-	Not Established
2,2'-Bipyridine 366-18-7	-	-	Not Established
Sodium metabisulfite* 7681-57-4	TWA: 5 mg/m <sup>3</sup>	(vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 5 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). Goggles.

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory protection** Maintain adequate ventilation.

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

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

**Physical state** powder  
**Appearance** Gray **Odor** Slight Sulphurous

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6	(0.1g/10mL water)
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	Not Applicable	
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 in water	
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. Stability decreases in the presence of moisture.

**Hazardous Reactions** None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid** Excessive heat. Exposure to air or moisture over prolonged periods. Keep away from children.

**Incompatible materials** Acids. Alkalis. Strong oxidizing agents.

**Hazardous decomposition products** Carbon oxides (COx). Sulfur oxides (SOx). Sodium oxides.

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

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Zinc	Not Established	Not Established	Not Established
Sodium sulfite 7757-83-7	= 820 mg/kg ( Rat )	Not Established	> 22 mg/L ( Rat ) 1 h
2,2'-Bipyridine 366-18-7	= 100 mg/kg ( Rat )	= 250 mg/kg ( Rat )	Not Established
Sodium metabisulfite* 7681-57-4	= 1310 mg/kg ( Rat )	> 2 g/kg ( Rat )	Not Established

**Information on toxicological effects**

Chemical name	ACGIH	IARC	NTP	OSHA
Zinc	Not Established	Not Established	Not Established	Not Established
Sodium sulfite 7757-83-7	Not Established	Group 3	Not Established	Not Established
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	Not Established	Group 3	Not Established	Not Established

*IARC (International Agency for Research on Cancer)  
Group 3 - Not classifiable as to its carcinogenicity to humans*

**ATEmix (oral)** 671.00 mg/kg  
**ATEmix (dermal)** 1,328.00 mg/kg

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Toxic to aquatic life

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Zinc	0.09 - 0.125: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.11 - 0.271: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	0.211 - 0.269: 96 h Pimephales promelas mg/L LC50 semi-static 2.16 - 3.05: 96 h Pimephales promelas mg/L LC50 flow-through 0.24: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.41: 96 h Oncorhynchus mykiss mg/L LC50 static 0.45: 96 h Cyprinus carpio mg/L LC50 semi-static 0.59: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 2.66: 96 h Pimephales promelas mg/L LC50 static 3.5: 96 h Lepomis macrochirus mg/L LC50 static 30: 96 h Cyprinus carpio mg/L LC50 7.8: 96 h Cyprinus carpio mg/L LC50 static	0.139 - 0.908: 48 h Daphnia magna mg/L EC50 Static
Sodium sulfite 7757-83-7	Not Established	220 - 460: 96 h Leuciscus idus mg/L LC50 static	330: 24 h Psammechinus miliaris mg/L LC50
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	40: 96 h Desmodemus subspicatus mg/L EC50 48: 72 h Desmodemus subspicatus mg/L EC50	32: 96 h Lepomis macrochirus mg/L LC50 static	89: 24 h Daphnia magna Straus mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Zinc	Not Established
Sodium sulfite 7757-83-7	-4
2,2'-Bipyridine 366-18-7	Not Established
Sodium metabisulfite* 7681-57-4	-3.7

**13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Dispose of contents/containers in accordance with local regulations. This material, as supplied, is not a hazardous waste according to state and Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste pursuant to Federal regulations, and the applicable state requirements for the specific area of disposal. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging**

Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Zinc	Not Established	-	Not Established	Not Established
Sodium sulfite 7757-83-7	Not Established	-	Not Established	Not Established
2,2'-Bipyridine 366-18-7	Not Established	-	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Zinc	Not Established	Not Established	Not Established	Not Established
Sodium sulfite 7757-83-7	Not Established	Not Established	Not Established	Not Established
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Zinc	Ignitable powder Toxic
Sodium sulfite 7757-83-7	-
2,2'-Bipyridine 366-18-7	-
Sodium metabisulfite* 7681-57-4	-

**14. TRANSPORT INFORMATION****DOT**

**Proper shipping name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(SODIUM DISULPHITE)  
**UN-No** 3260  
**Hazard Class** 8  
**Packing group** III

**IATA**

**Proper shipping name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(SODIUM DISULPHITE)  
**UN-No** 3260  
**Hazard Class** 8  
**Packing group** III

**IMDG/IMO**

**Proper shipping name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(SODIUM DISULPHITE)

UN-No 3260  
Hazard Class 8

### 15. REGULATORY INFORMATION

#### International Inventories

TSCA Complies  
DSL/NDSL Complies  
EINECS/ELINCS Complies  
ENCS Complies  
IECSC Complies  
KECL Complies  
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 contains a chemical or 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 %
Zinc	1.0
Sodium sulfite 7757-83-7	Not Established
2,2'-Bipyridine 366-18-7	Not Established
Sodium metabisulfite* 7681-57-4	Not Established

##### SARA 311/312 Hazard Categories

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

##### CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc	Not Established	X	X	Not Established
Sodium sulfite 7757-83-7	Not Established	Not Established	Not Established	Not Established
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	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
Zinc	1000 lb	Not Established	RQ 454 kg final RQ RQ 1000 lb final RQ
Sodium sulfite 7757-83-7	-	Not Established	-
2,2'-Bipyridine 366-18-7	-	Not Established	-
Sodium metabisulfite* 7681-57-4	-	Not Established	-

**US State Regulations****California Proposition 65**

Chemical name	California Proposition 65
Zinc	Not Established
Sodium sulfite 7757-83-7	Not Established
2,2'-Bipyridine 366-18-7	Not Established
Sodium metabisulfite* 7681-57-4	Not Established

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc	X	X	X
Sodium sulfite 7757-83-7	Not Established	Not Established	Not Established
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	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

Stability 1



Health Hazard	2
Fire Hazard	0
Reactivity	1

Prepared by  
Issuing Date  
Reason for revision  
**Disclaimer**

Regulatory Affairs Department  
Feb-10-2015  
(M)SDS sections updated 4

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 Safety Data Sheet**