Safety Data Sheet

OSHA format

Issuing Date Feb-16-2017 **Revision Date** Dec-15-2016 **Revision Number** 0

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

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 numbers

(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.

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.

Storage:
Store in a well-ventilated place. Keep cool.
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	*-	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

General advice Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin contact 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.

Inhalation Remove to fresh air. If symptoms arise, call a physician.

Ingestion Drink plenty of water. Rinse mouth. Consult a physician if necessary.

Self-protection of the first aider 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.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Water spray, dry chemical, carbon dioxide (CO_2), 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. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment Sweep up in a manner that does not dispurse 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/m³	(vacated) TWA: 5 mg/m³	TWA: 5 mg/m³

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

Property	Values	Remarks • Method
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 with long lasting effects

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	0.139 - 0.908: 48 h Daphnia magna mg/L EC50 Static

		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	
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 Desmodesmus subspicatus mg/L EC50 48: 72 h Desmodesmus 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
For .? :.

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	Not Established	Not Established	Not Established	Not Established

366-18-7				
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

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA

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

IMDG/IMO

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

RID

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

ADR

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

ADN Not regulated

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

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

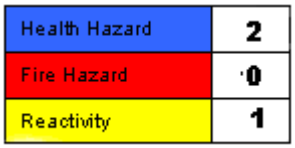
Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc	X	X	X
Sodium sulfite 7757-83-7	Not Established	Not Established	Not Established
2,2`-Bipyridine 366-18-7	Not Established	Not Established	Not Established
Sodium metabisulfite* 7681-57-4	X	X	X

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



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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 Safety Data Sheet