

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

**Product identifier**

**Product name** FERROUS IRON REAGENT

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**Other means of identification**

**Product Code(s)** 4453

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

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

**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
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### EMERGENCY OVERVIEW

<b>WARNING</b>		
<b>Hazard statements</b> Harmful if swallowed.		
		
<b>Appearance</b> White Off-white	<b>Physical state</b> powder	<b>Odor</b> Odorless

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Keep out of the reach of children.

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash 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**

May be harmful in contact with skin Harmful to aquatic life with long lasting effects

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	CAS No	Weight-%
2,2'-Bipyridine	366-18-7	8
Potassium chloride	7447-40-7	92

**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. 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 breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.
<b>Ingestion</b>	Induce vomiting, but only if victim is fully conscious. Clean mouth with water. Call a physician or poison control center immediately.
<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.

**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**

<b>Personal precautions</b>	Use personal protection recommended in Section 8. Avoid dust formation.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.

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

<b>Methods for containment</b>	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 /
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national regulations (see Section 13).

**Methods for cleaning up**

Avoid dust formation. Sweep up and shovel into suitable 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. Keep out of the reach of children.

**Incompatible Products**

None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2,2'-Bipyridine 366-18-7	-	-	Not Established
Potassium chloride 7447-40-7	-	-	Not Established

**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). Avoid contact with eyes.

**Skin and body protection**

Gloves & Lab Coat.

**Respiratory protection**

None required under normal usage.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties****Physical state**

powder

**Appearance**

White Off-white

**Odor**

Odorless

**Property****Values****Remarks • Method****pH**

7

(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

<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable.
<b>Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Exposure to air or moisture over prolonged periods.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known.

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

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
2,2'-Bipyridine 366-18-7	= 100 mg/kg ( Rat )***	= 250 mg/kg ( Rat )***	Not Established
Potassium chloride 7447-40-7	= 2600 mg/kg ( Rat )***	Not Established	Not Established

**Information on toxicological effects**

Chemical name	ACGIH	IARC	NTP	OSHA
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established	Not Established

<b>ATEmix (oral)</b>	881.00 mg/kg
<b>ATEmix (dermal)</b>	3,205.00 mg/kg

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

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established

Potassium chloride 7447-40-7	2500: 72 h <i>Desmodemus subspicatus</i> mg/L EC50***	750 - 1020: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1060; 96 h <i>Lepomis macrochirus</i> mg/L LC50 static***	825: 48 h <i>Daphnia magna</i> mg/L EC50 83: 48 h <i>Daphnia magna</i> mg/L EC50 Static***
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**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
2,2'-Bipyridine 366-18-7	Not Established
Potassium chloride 7447-40-7	Not Established

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

Dispose of waste product or used containers according to local regulations.

**Contaminated packaging**

Dispose of waste product or used containers according to local regulations.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
2,2'-Bipyridine 366-18-7	Not Established	-	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
2,2'-Bipyridine 366-18-7	-
Potassium chloride 7447-40-7	-

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

Not regulated

**IATA**

Not regulated

**IMDG/IMO**

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/NDL - 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 %
2,2'-Bipyridine 366-18-7	Not Established
Potassium chloride 7447-40-7	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	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
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established	Not Established

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
2,2'-Bipyridine 366-18-7	-	Not Established	-
Potassium chloride 7447-40-7	-	Not Established	-

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

Chemical name	California Proposition 65
2,2'-Bipyridine 366-18-7	Not Established
Potassium chloride 7447-40-7	Not Established

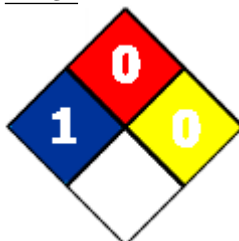
**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
2,2'-Bipyridine 366-18-7	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established

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

**NFPA** Health hazard 1 Flammability 0 Instability 0 Physical and Chemical Hazards N/A

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



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

**Prepared by**  
**Issuing Date**  
**Disclaimer**

Regulatory Affairs Department  
Nov-11-2015

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**