

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

Product identifier

Product name **MANGANESE REAGENT B**

Other means of identification

Product Code(s) **7218**

UN-No **1444**

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals. Use as a laboratory reagent. 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
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Physical hazards Oxidizing Solids.	

EMERGENCY OVERVIEW

DANGER

Hazard statements

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.
May cause fire or explosion; strong oxidizer.



Appearance White crystalline powder

Physical state Solid/Powder

Odor No information available

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. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. 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 eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. 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 container tightly closed. Store locked up.

Precautionary Statements - Disposal

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

Other Hazards

Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Ammonium persulfate	7727-54-0	98-100

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

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. 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 persist, call a physician. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Consult a physician if necessary.

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.

Unsuitable extinguishing media

Water.

Specific hazards arising from the chemical

Will be easily ignited by heat, sparks or flames. May ignite combustibles (wood, paper, oil, clothing, etc.). This is a strong oxidizer and will react vigorously or explosively with many materials including fuels.

Explosion data

Mixing a solution of ammonium persulfate with powdered iron or aluminum may result in explosion.

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 Avoid dust formation. Avoid breathing dust. Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas.

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Should not be released into the environment.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean up spill in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Keep in suitable and closed containers for disposal. Never return spills in original containers for re-use. Do not reuse empty containers. Following product recovery, flush area with water. Dike far ahead of spill to collect runoff water. Prevent entry into waterways, sewers, basements or confined areas.

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

Handling Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Wash hands thoroughly after handling. Avoid contact with eyes, skin and clothing. Keep away from clothing and other combustible materials. Do not eat, drink, or smoke when using this product. Remove all sources of ignition. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors/dust. In case of insufficient ventilation, wear suitable respiratory equipment. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Store away from incompatible materials. Store container tightly closed at temperature less than 20 deg C, away from combustible and flammable materials. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Products Strong reducing agents. Finely powdered metals. Combustible materials. Organic material. Aluminium. Water. Peroxides.

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

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium persulfate 7727-54-0	TWA: 0.1 mg/m ³	-	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).

Skin and body protection	Gloves & Lab Coat. Impervious clothing. Protective gloves. Nitrile rubber.
Respiratory protection	Use only with adequate ventilation. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. In case of insufficient ventilation wear suitable respiratory equipment. In case of inadequate ventilation wear respiratory protection.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid/Powder	Odor	No information available
Appearance	White crystalline powder		
Property	Values	Remarks • Method	
pH	4	(0.1g/10mL water)	
Melting point / freezing point	No information available		
Boiling point / boiling range	No information available		
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	Reacts with water.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Combustible materials. Moisture. Incompatible Products.
Incompatible materials	Strong reducing agents. Finely powdered metals. Combustible materials. Organic material. Aluminium. Water. Peroxides.
Hazardous decomposition products	Ammonia. Sulfur oxides (SOx). Nitrogen oxides (NOx). Sulfuric acid.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May be harmful if inhaled. May cause drowsiness or dizziness.
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Eye contact Severely irritating to eyes.
Skin contact Harmful in contact with skin. Causes skin irritation.
Ingestion Harmful if swallowed. May cause irritation.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium persulfate 7727-54-0	= 495 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	= 520 mg/L (Rat) 1 h

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Ammonium persulfate 7727-54-0	Not Established	Not Established	Not Established	Not Established

ATEmix (oral) 495
ATEmix (dermal) 10000 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

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

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Ammonium persulfate 7727-54-0	Not Established	103: 96 h Lepomis macrochirus mg/L LC50 static 323: 96 h Poecilia reticulata mg/L LC50 76.3: 96 h Oncorhynchus mykiss mg/L LC50 static	120: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Mobility

Will likely be mobile in the environment due to its water solubility.

Chemical name	Log Pow
Ammonium persulfate 7727-54-0	Not Established

13. DISPOSAL CONSIDERATIONS**Disposal Methods**

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

Contaminated packaging

Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Ammonium persulfate 7727-54-0	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Ammonium persulfate 7727-54-0	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Ammonium persulfate 7727-54-0	-

14. TRANSPORT INFORMATION

DOT

Proper shipping name	AMMONIUM PERSULPHATE
UN-No	1444
Hazard Class	5.1
Packing group	III

IATA

Proper shipping name	AMMONIUM PERSULPHATE
UN-No	1444
Hazard Class	5.1
Packing group	III

IMDG/IMO

Proper shipping name	AMMONIUM PERSULPHATE
UN-No	1444
Hazard Class	5.1
Packing group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	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 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 %
Ammonium persulfate 7727-54-0	1.0

SARA 311/312 Hazard Categories

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

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
Ammonium persulfate 7727-54-0	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
Ammonium persulfate 7727-54-0	-	Not Established	-

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

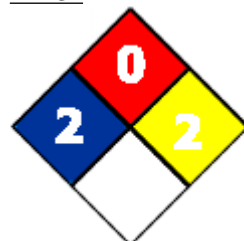
Chemical name	California Proposition 65
Ammonium persulfate 7727-54-0	Not Established

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ammonium persulfate 7727-54-0	X	Not Established	Not Established

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

NFPA	Health hazard 2	Flammability 0	Instability 2	Physical and Chemical Hazards OX
HMIS	Health hazard 2	Flammability 0	Stability 2	



Health Hazard	2
Fire Hazard	0
Reactivity	2

Prepared by
Issuing Date
Reason for revision
Disclaimer

Regulatory Affairs Department
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New US GHS format

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