

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

Product identifier

Product name Nitrate Reagent #1

Other means of identification

Product Code(s) 5146
UN-No 2837

Recommended use of the chemical and restrictions on use

Recommended Use 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

Serious eye damage/eye irritation

Category 1

EMERGENCY OVERVIEW

DANGER

Hazard statements

Causes serious eye damage.



Appearance Clear pink

Physical state liquid

Odor Odorless

Precautionary Statements - Prevention

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 doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF SWALLOWED, Drink 1 or 2 glasses of water, Call a physician immediately

Other Hazards

Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Cresol red	1733-12-6	<0.1
Ammonium sulfate	7783-20-2	8
Sodium hydrogen sulfate, monohydrate	10034-88-5	26
Water	7732-18-5	to 100%

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

General advice	Show this safety data sheet to the doctor in attendance. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. If symptoms persist, call a physician.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Call a physician immediately. Never give anything by mouth to an unconscious person.
<u>Self-protection of the first aider</u>	Use personal protection recommended in Section 8. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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	Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing.
Environmental precautions	See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment	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

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. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling**Handling**

Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. See section 8.

Conditions for safe storage, including any incompatibilities**Storage**

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep away from heat.

Incompatible Products

Strong oxidizing agents. Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cresol red 1733-12-6	-	-	Not Established
Ammonium sulfate 7783-20-2	-	-	Not Established
Sodium hydrogen sulfate, monohydrate 10034-88-5	-	-	Not Established
Water 7732-18-5	-	-	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. Rubber gloves. Nitrile rubber.

Hygiene Measures

Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state
Appearance

liquid
Clear pink

Odor

Odorless

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

pH
Melting point / freezing point
Boiling point / boiling range
Flash point
Evaporation rate
Flammability (solid, gas)
Flammability Limit in Air

<1

No information available
No information available
No information available
No information available

No information available

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	Stable under recommended storage conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat.
Incompatible materials	Strong oxidizing agents. Acids.
Hazardous decomposition products	Sulfur oxides (SO _x). Sodium oxides. Ammonia.

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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Cresol red 1733-12-6	Not Established	Not Established	Not Established
Ammonium sulfate 7783-20-2	= 2000 mg/kg (Rat)	Not Established	Not Established
Sodium hydrogen sulfate, monohydrate 10034-88-5	= 2490 mg/kg (Rat)	Not Established	Not Established
Water 7732-18-5	> 90 mL/kg (Rat)	Not Established	Not Established

Information on toxicological effects**Sensitization** No information available

Chemical name	ACGIH	IARC	NTP	OSHA
Cresol red 1733-12-6	-	Not Established	Not Established	-
Ammonium sulfate 7783-20-2	-	Not Established	Not Established	-
Sodium hydrogen sulfate, monohydrate 10034-88-5	-	Not Established	Not Established	-
Water 7732-18-5	-	Not Established	Not Established	-

ATEmix (oral)

6850

12. ECOLOGICAL INFORMATION

Ecotoxicity

Unknown Aquatic Toxicity 0.054 % 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)
Cresol red 1733-12-6	Not Established	Not Established	Not Established
Ammonium sulfate 7783-20-2	Not Established	123 - 128: 96 h <i>Poecilia reticulata</i> mg/L LC50 semi-static 32.2 - 41.9: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 460 - 1000: 96 h <i>Leuciscus idus</i> mg/L LC50 static 5.2 - 8.2: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 126: 96 h <i>Poecilia reticulata</i> mg/L LC50 18: 96 h <i>Cyprinus carpio</i> mg/L LC50 250: 96 h <i>Brachydanio rerio</i> mg/L LC50 420: 96 h <i>Brachydanio rerio</i> mg/L LC50 semi-static 480: 96 h <i>Brachydanio rerio</i> mg/L LC50 flow-through 100: 96 h <i>Pimephales promelas</i> mg/L LC50	14: 48 h <i>Daphnia magna</i> mg/L LC50 423: 24 h <i>Daphnia magna</i> mg/L EC50
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established	Not Established	190: 48 h <i>Daphnia magna</i> mg/L EC50
Water 7732-18-5	Not Established	Not Established	Not Established

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Cresol red 1733-12-6	Not Established
Ammonium sulfate 7783-20-2	-5.1
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established
Water 7732-18-5	Not Established

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). When in compliance with local regulations, neutralize reagent to pH 7 with dilute base (NaOH/soda ash/slaked lime), then rinse to drain with excess water.

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
Cresol red 1733-12-6	Not Established	-	Not Established	Not Established
Ammonium sulfate 7783-20-2	Not Established	-	Not Established	Not Established
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established	-	Not Established	Not Established
Water 7732-18-5	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Cresol red 1733-12-6	Not Established	Not Established	Not Established	Not Established
Ammonium sulfate 7783-20-2	Not Established	Not Established	Not Established	Not Established
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established	Not Established	Not Established	Not Established
Water 7732-18-5	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Cresol red 1733-12-6	-
Ammonium sulfate 7783-20-2	-
Sodium hydrogen sulfate, monohydrate 10034-88-5	-
Water 7732-18-5	-

14. TRANSPORT INFORMATION

DOT

Proper shipping name BISULFATE, AQUEOUS SOLUTION
UN-No 2837
Hazard Class 8
Packing group II

IATA

Proper shipping name BISULFATE, AQUEOUS SOLUTION
UN-No 2837
Hazard Class 8
Packing group II

IMDG/IMO

Proper shipping name BISULFATE, AQUEOUS SOLUTION
UN-No 2837
Hazard Class 8
Packing group II

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Does not comply
EINECS/ELINCS Does not comply
ENCS Does not comply
IECSC Complies
KECL Does not comply
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 %
Cresol red 1733-12-6	Not Established
Ammonium sulfate 7783-20-2	1.0
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established
Water 7732-18-5	Not Established

SARA 311/312 Hazard Categories

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

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Cresol red 1733-12-6	Not Established	Not Established	Not Established	Not Established
Ammonium sulfate 7783-20-2	Not Established	Not Established	Not Established	Not Established
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established	Not Established	Not Established	Not Established
Water 7732-18-5	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
Cresol red 1733-12-6	-	Not Established	-
Ammonium sulfate 7783-20-2	-	Not Established	-
Sodium hydrogen sulfate, monohydrate 10034-88-5	-	Not Established	-
Water 7732-18-5	-	Not Established	-

US State Regulations

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
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Cresol red 1733-12-6	Not Established	Not Established	Not Established
Ammonium sulfate 7783-20-2	Not Established	X	X
Sodium hydrogen sulfate, monohydrate 10034-88-5	Not Established	Not Established	Not Established
Water 7732-18-5	Not Established	Not Established	X

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	2
Fire Hazard	0
Reactivity	0

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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