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Safety Data Sheet

OSHA format

Revision Number 0

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

Product identifier

Product name Chloride Reagent A

Other means of identification

Product Code(s) 4069

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 numbers

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A

EMERGENCY OVERVIEW**DANGER****Hazard statements**

May cause an allergic skin reaction. May cause genetic defects. May cause cancer.



Appearance Clear yellow liquid

Physical state liquid

Odor None

Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

Response: IF exposed or concerned: Get medical advice/attention. 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. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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.

Storage:

Store locked up.

Disposal:

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

Other Hazards

Causes mild skin irritation. Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

Chemical name	CAS No	Weight-%
Silver nitrate	7761-88-8	<0.01
Potassium chromate	7789-00-6	5

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

Do not get in eyes, on skin, or on clothing.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation persists or develops, contact a physician.

Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.
Ingestion	Do not induce vomiting without medical advice. Rinse mouth with water and afterwards drink plenty of water or milk. Never give anything by mouth to an unconscious person. Consult a physician.
<u>Self-protection of the first aider</u>	Use personal protective equipment. See section 8 for more information. 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

Dry chemical, CO₂, alcohol-resistant foam or water spray.

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	Ensure adequate ventilation. Use personal protective equipment. See section 8. Avoid contact with skin, eyes, and inhalation of vapors.
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	Soak up with inert absorbent material, containerize, and hold for disposal. Do not flush to sewer.
Methods for cleaning up	Keep in suitable and closed containers for disposal.

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.
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Conditions for safe storage, including any incompatibilities

Storage:	Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature. Keep away from direct sunlight. Keep out of the reach of children.
Incompatible Products	Strong reducing agents. Hydrazine.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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Silver nitrate 7761-88-8	TWA: 0.01 mg/m ³ Ag	TWA: 0.01 mg/m ³ Ag (vacated) TWA: 0.01 mg/m ³ Ag	IDLH: 10 mg/m ³ Ag TWA: 0.01 mg/m ³ Ag
Potassium chromate 7789-00-6	TWA: 0.05 mg/m ³ Cr	TWA: 5 µg/m ³ (vacated) Ceiling: 0.1 mg/m ³ Ceiling: 0.1 mg/m ³ CrO ₃ applies to any operations or sectors for which the Hexavalent Chromium standard [29 CFR 1910.1026] is stayed or is otherwise not in effect	IDLH: 15 mg/m ³ Cr(VI) TWA: 0.0002 mg/m ³ Cr

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

Wear protective gloves/clothing. Gloves & Lab Coat.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures

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

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

Physical state	liquid		
Appearance	Clear yellow liquid	Odor	None
Color	Clear yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	9	
Melting point / freezing point	No information available	
Boiling point / boiling range	ca. 101 °C / °F	
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	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 normal conditions of use and storage.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Incompatible products. Direct sunlight.
Incompatible materials	Strong reducing agents. Hydrazine.
Hazardous decomposition products	

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Component identification

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Silver nitrate 7761-88-8	= 1173 mg/kg (Rat)	Not Established	Not Established
Potassium chromate 7789-00-6	Not Established	Not Established	Not Established

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Silver nitrate 7761-88-8	Not Established	Group 2A	Not Established	X
Potassium chromate 7789-00-6	A1	Group 1	Known	X

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

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)
Silver nitrate 7761-88-8	Not Established	0.001339 - 0.001637: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.00181 - 0.00214: 96 h Pimephales promelas mg/L LC50 static 0.00452 - 0.00638: 96 h Pimephales promelas mg/L LC50 flow-through 0.00512 - 0.00787: 96 h Poecilia reticulata mg/L LC50 semi-static 0.0064 - 0.0106: 96 h Pimephales promelas mg/L LC50 semi-static 0.00839 - 0.1802: 96 h Oncorhynchus mykiss mg/L LC50 static 0.009 - 0.02: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.0242 - 0.0484: 96 h Lepomis macrochirus mg/L LC50 semi-static 0.05 - 0.07: 96 h Lepomis macrochirus mg/L LC50 static 0.0027: 96 h Cyprinus carpio mg/L LC50 semi-static	0.0008 - 0.001: 48 h Daphnia magna mg/L EC50 Flow through 0.0008 - 0.0011: 48 h Daphnia magna mg/L EC50 Static 0.0006: 48 h Daphnia magna mg/L EC50

		0.0075: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.009: 96 h Pimephales promelas mg/L LC50	
Potassium chromate 7789-00-6	Not Established	Not Established	Not Established

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Silver nitrate 7761-88-8	Not Established
Potassium chromate 7789-00-6	Not Established

13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Dispose of contents/containers in accordance with local regulations.

Contaminated packaging

Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Silver nitrate 7761-88-8	Not Established	-	Not Established	Not Established
Potassium chromate 7789-00-6	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Silver nitrate 7761-88-8	Not Established	Not Established	Not Established	Not Established
Potassium chromate 7789-00-6	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Silver nitrate 7761-88-8	Toxic
Potassium chromate 7789-00-6	Toxic Corrosive Ignitable

14. TRANSPORT INFORMATION**DOT** Not regulated**TDG** Not regulated**MEX** Not regulated**ICAO** Not regulated**IATA** Not regulated**IMDG/IMO** Not regulated**RID** Not regulated**ADR** Not regulated

ADN

Not regulated

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 %
Silver nitrate 7761-88-8	1.0
Potassium chromate 7789-00-6	0.1

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)

This product contains the following substances which are regulated 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
Silver nitrate 7761-88-8	1 lb	X	Not Established	X
Potassium chromate 7789-00-6	10 lb	X	Not Established	X

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
Silver nitrate 7761-88-8	1 lb	Not Established	RQ 1 lb final RQ RQ 0.454 kg final RQ
Potassium chromate 7789-00-6	10 lb	Not Established	RQ 10 lb final RQ RQ 4.54 kg final RQ

US State Regulations

California Proposition 65 WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other

reproductive harm



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Chemical name	California Proposition 65
Silver nitrate 7761-88-8	Not Established
Potassium chromate 7789-00-6	Carcinogen Developmental Female Reproductive Male Reproductive

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Silver nitrate 7761-88-8	X	X	X
Potassium chromate 7789-00-6	X	X	X

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

Chemical name	CPSC (Consumer Product Safety Commission) - Specially Regulated Substances
Silver nitrate 7761-88-8	Add POISON to label, 16 CFR 1500.129

16. OTHER INFORMATION**NFPA**

Health hazard 2

Flammability 0

Instability 0

Physical and Chemical
Hazards N/A

Health Hazard	2
Fire Hazard	0
Reactivity	0

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

Regulatory Affairs Department

Dec-11-2017

Mar-02-2018

SDS sections updated 15 16

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