



Issuing Date 9/22/2010

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Chloride Reagent #1

Product Code(s) 4504

Recommended Use Laboratory chemicals. Industrial (not for food or food contact use). Test kit reagent.

Company LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620
USA

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

WARNING!**Emergency Overview**

Severe eye irritation
Harmful if swallowed
Harmful by inhalation
Irritating to skin

Appearance Clear, Yellow, Liquid**Physical State** Liquid**Odor** None**Potential Health Effects****Principle Routes of Exposure** Skin and eye contact, Ingestion**Acute Toxicity****Eyes**

Liquid may cause severe irritation and possible eye damage.

Skin

Contact can cause severe skin irritation. Effects are expected to be less severe than for exposures to higher concentrations which symptoms include severe burns, pain, redness.

Inhalation

May cause irritation of respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Effects are expected to be less severe than for exposure to higher concentrations which symptoms can include coughing, nausea, vomiting.

Ingestion

Harmful if swallowed. May cause adverse kidney effects. May cause adverse liver effects.

Chronic Effects**Aggravated Medical Conditions** Respiratory disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Potassium chromate	7789-00-6	5
Silver nitrate	7761-88-8	<0.01
Water	7732-18-5	to 100%

4. 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	Move 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.
Protection of First-aiders	Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIRE-FIGHTING MEASURES

Flash Point	Not combustible
Suitable Extinguishing Media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray.
Explosion Data	
NFPA	Health Hazard 2 Flammability 0 Stability 0 Physical and Chemical Hazards -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8. Avoid contact with skin, eyes and inhalation of vapors.
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

Handling	Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes and clothing. Do not ingest. Do not eat, drink or smoke when using this product.
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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium chromate 7789-00-6	TWA: 0.01 mg/m ³ TWA: 0.05 mg/m ³	TWA: 5 µg/m ³	IDLH: 15 mg/m ³ TWA: 0.001 mg/m ³
Silver nitrate 7761-88-8	TWA: 0.01 mg/m ³	TWA: 0.01 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.01 mg/m ³
Water 7732-18-5	None Known	None Known	None Known

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Clear Yellow Liquid

Odor

None

Physical State

Liquid

pH

9

Flash Point

Not combustible

Boiling Point/Range

ca. 101 °C

Vapor Pressure

No information available

Vapor Density

No information available

10. STABILITY AND REACTIVITY**Stability**

Stable under normal conditions of use and storage.

Incompatible Products

Strong reducing agents. Hydrazine.

Conditions to Avoid

Excessive heat. Incompatible products. Direct sunlight.

Hazardous Polymerization

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity****LD50 Oral VALUE (mg/kg)**

Potassium chromate 180mg/kg (Mouse)

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium chromate	None Known	None Known	None Known
Silver nitrate	1173 mg/kg (Rat)	None Known	None Known
Water	90 mL/kg (Rat)	None Known	None Known

Chronic Toxicity

Chemical Name	ACGIH	IARC	NTP	OSHA
Potassium chromate	A1	Group 1	Known	X
Silver nitrate	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Potassium chromate	None Known	None Known	None Known
Silver nitrate	None Known	None Known	None Known
Water	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Potassium chromate	None Known	None Known	None Known	None Known
Silver nitrate	None Known	LC50= 0.0056 mg/L Pimephales promelas 96 h LC50= 0.006 mg/L Oncorhynchus mykiss 96 h LC50= 0.0064 mg/L Pimephales promelas 96 h LC50= 0.00644 mg/L Poecilia reticulata 96 h LC50= 0.007 mg/L Lepomis macrochirus 96 h LC50= 0.0085 mg/L Poecilia reticulata 96 h LC50= 0.0094 mg/L Pimephales promelas 96 h	EC50 = 0.038 mg/L 24 h EC50 = 0.395 mg/L 15 min EC50 = 0.44 mg/L 30 min EC50 = 0.86 mg/L 15 min	EC50 = 0.0006 mg/L 48 h EC50 = 0.9 µg/L 48 h LC50 = 5 µg/L 96 h
Water	None Known	None Known	None Known	None Known

Chemical Name	Log Pow
Potassium chromate	None Known
Silver nitrate	None Known
Water	None Known

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of contents/container in accordance with local regulation.

Chemical Name
Potassium chromate - 7789-00-6
Silver nitrate - 7761-88-8
Water - 7732-18-5

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Potassium chromate - 7789-00-6	None Known	None Known	None Known	None Known
Silver nitrate - 7761-88-8	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known

Chemical Name	California Hazardous Waste Status
Potassium chromate	Toxic; Corrosive; Ignitable
Silver nitrate	Toxic

14. TRANSPORT INFORMATION**DOT**

Not regulated

IATA

Not regulated

IMDG/IMO

Not regulated

15. REGULATORY INFORMATION**International Inventories**

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Potassium chromate 7789-00-6 (5)	R	X	X	1-661	X	KE-29089	X	X

Silver nitrate 7761-88-8 (<0.01)	Present	X	X	1-8	X	KE-31281	X	X
Water 7732-18-5 (to 100%)	Present	X	X	ENCS	X	KE-35400	X	X

U.S. 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	CAS-No	Weight %	SARA 313 - Threshold Values %
Potassium chromate	7789-00-6	5	0.1
Silver nitrate	7761-88-8	<0.01	1.0
Water	7732-18-5	to 100%	None Known

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

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).

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Potassium chromate 7789-00-6 (5)	10 lb	X	None Known	X
Silver nitrate 7761-88-8 (<0.01)	1 lb	X	None Known	X
Water 7732-18-5 (to 100%)	None Known	None Known	None Known	None Known

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Potassium chromate	7789-00-6	5	Present (includes any unique chemical substance that contains Chromium as part of its infrastructure)	None Known	None Known	None Known
Silver nitrate	7761-88-8	<0.01	None Known	None Known	None Known	None Known
Water	7732-18-5	to 100%	None Known	None Known	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Potassium chromate	10 lb	None Known
Silver nitrate	1 lb	None Known
Water	None Known	None Known

U.S. State Regulations

California Proposition 65

WARNING! This product contains a chemical known to the State of California to cause cancer

Chemical Name	CAS-No	California Prop. 65
Potassium chromate	7789-00-6	Carcinogen
Silver nitrate	7761-88-8	None Known

Water	7732-18-5	None Known
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Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Potassium chromate	X	X	X	X	X
Silver nitrate	X	X	X	None Known	X
Water	None Known	None Known	None Known	None Known	None Known

International Regulations

Mexico - Grade

Chemical Name	Carcinogen Status	Exposure Limits
Potassium chromate	A1	Mexico: TWA= 0.01 mg/m ³ Mexico: TWA= 0.05 mg/m ³ Mexico: TWA= 0.5 mg/m ³
Silver nitrate	None Known	Mexico: TWA= 0.01 mg/m ³
Water	None Known	None Known

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

C Oxidizing materials



D2A - Poisonous and infectious material - Other effects - Very toxic

D2B - Poisonous and infectious material - Other effects - Toxic



Chemical Name	NPRI
Potassium chromate	X
Silver nitrate	X

16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>1</td></tr></table>	Health Hazard	2	Fire Hazard	0	Reactivity	1		Not regulated
Health Hazard	2								
Fire Hazard	0								
Reactivity	1								

Prepared By

Regulatory Affairs Department

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Disclaimer

The information provided on this MSDS 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 MSDS