

MATERIAL SAFETY DATA SHEET

LaMOTTE COMPANY
PO BOX 329 - CHESTERTOWN - MARYLAND - 21620
TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Sulfuric Acid, 0.5N or

Code Nr. **6090**

Chloride E

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
† Sulfuric Acid	7664-93-9		2.4	1 mg/cubic m	1 mg/cubic m

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Water to 100%		

4. PHYSICAL DATA

Appearance: Clear Colorless Liquid
Solubility in Water: Soluble Odor: None Boiling Point: Unknown Melt Point: N/A
Vapor Pressure: Unknown Vapor Density: Unknown pH: 1

5. FIRE AND EXPLOSION DATA

Flash Point (method used): N/A Flammable Limit: LEL: N/A UEL: N/A
Extinguishing Media: Not a fire hazard
HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 1 Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least
Special Fire Fighting Procedures:
N/A
Unusual Fire & Explosion Hazard:
N/A

6. REACTIVITY DATA

Stability: Stable Conditions to avoid: N/A
 Unstable Incompatibility (Materials to avoid):
Metals, strong bases
Hazardous Decomposition Products: SOx

7. HEALTH HAZARD DATA

Toxicity: orl rat LD50: 2140 mg/kg for sulfuric acid, concentrated
Primary Route of Entry: Inhalation Skin Carcinogenicity: None NTP
 Ingestion N/A OSHA IARC
Other Health Related Comments:
Target Organs: N/A
Signs and symptoms of exposure:
Causes severe eye and skin irritation. Harmful if swallowed.
Medical Condition Aggravated by Exposure: N/A

8. EMERGENCY FIRST AID PROCEDURES

Eye Contact: Flush thoroughly with water for 15 minutes. Consult a physician.
Ingestion: Rinse out mouth. Drink glass of water. Consult a physician.
Inhalation:
N/A
Skin Contact:
Flush thoroughly with water while removing affected clothing. Wash skin with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

Spill and Leak:
Cover spill with sodium bicarbonate. Scoop up slurry and wash down drain with excess water.
Disposal:
Add slowly to a solution of soda ash and slaked lime (calcium hydroxide). Pour neutralized solution down drain with excess water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

In Handling: Gloves Eye Protection N/A Other: Lab Coat
Ventilation Normal Mechanical Respiratory Protection
Work/Hygienic Practices: Avoid contact with skin and clothing.

11. SPECIAL PRECAUTIONS

N/A

DATE: 2/2/2000 The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

† This is a toxic chemical subject to reporting requirements of section 313 of EPCRA and 40CFR372.

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TELEPHONE # FOR INFORMATION 410-778-3100

Chemical Emergencies Only (Spill, Fire, Accident): Chemtrec 800-424-9300

Medical Emergency: Local Poison Control Center

1. PRODUCT IDENTIFICATION

Silver Nitrate 0.171N

Code Nr. 3824

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
† Silver Nitrate	7761-88-8		2.9	0.01 mg/cubic m as Ag	0.01 mg/cubic m as Ag

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
N/A		

4. PHYSICAL DATA

Appearance: Clear Colorless Liquid
Solubility in Water: Soluble
Odor: None
Boiling Point: Unknown
Melt Point: N/A
Vapor Pressure: <17 @20 deg C
Vapor Density: <1 (Air=1)
pH: 5

5. FIRE AND EXPLOSION DATA

Flash Point (method used) N/A
Extinguishing Media: Not a fire hazard
Flammable Limit: LEL: N/A
UEL: N/A
NFPA Hazard: Health - 1
Flammability - 0
Reactivity - 0
Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least
Special Fire Fighting Procedures:
N/A
Unusual Fire & Explosion Hazard:
N/A

6. REACTIVITY DATA

Stability: Stable
Conditions to avoid: Heat, light
Incompatibility (Materials to avoid):
N/A
 Unstable
Hazardous Decompositions Products: N/A

7. HEALTH HAZARD DATA

Toxicity: unk man LD Lo: 29 mg/kg for solid Silver Nitrate
Primary Route of Entry: Inhalation Skin Ingestion N/A
Carcinogenicity: None NTP
 OSHA IARC
Other Health Related Comments:
Target Organs: N/A
Signs and symptoms of exposure:
May stain skin. Harmful if swallowed.
Medical Condition Aggravated by Exposure: N/A

8. EMERGENCY FIRST AID PROCEDURES

Eye Contact: Immediately flush with water for 15 minutes. Consult a physician.
Ingestion: Rinse mouth, drink water, consult a physician.
Inhalation:
N/A
Skin Contact:
Immediately flush skin with water. Remove affected clothing and wash skin with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

Spill and Leak:
Wear gloves to mop up and flush spill area with water. Collect spilled liquid. Do not flush to sewer. Either dispose as hazardous waste or treat as follows:
Disposal:
Precipitate the silver with dilute hydrochloric acid. Collect the solid silver chloride and dispose of as hazardous waste. Neutralize the acidic liquid w/ soda ash or sodium bicarbonate & flush to drain with water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

In Handling: Gloves Eye Protection N/A Other: Lab Coat
Ventilation: Normal Mechanical Respiratory Protection
Work/Hygienic Practices: Avoid contact with skin and clothing.

11. SPECIAL PRECAUTIONS

Store away from light and heat.

DATE: 10/23/1997 The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

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TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Phenolphthalein Indicator,
0.5 %

Code Nr. 2258

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TIV
Ethyl Alcohol	64-17-5		57	1900 mg/cubic m	1000 ppm
+ Methyl Alcohol	67-56-1		3	260 mg/cubic m	200 ppm
Phenolphthalein	77-09-8		0.5	N/E	N/E

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Water to 100%		

4. PHYSICAL DATA

<i>Appearance:</i> Clear Colorless Liquid			
<i>Solubility in Water:</i> Soluble	<i>Odor:</i> Alcohol	<i>Boiling Point:</i> Unknown	<i>Melt. Point:</i> N/A
<i>Vapor Pressure:</i> Unknown	<i>Vapor Density:</i> 1.6(Air=1)	<i>pH:</i> N/A	

5. FIRE AND EXPLOSION DATA

<i>Flash Point (method used)</i> 22 deg C-closed cup	<i>Flammable Limit: LEL:</i> 3.3%	<i>UEL:</i> 19%
<i>Extinguishing Media:</i> Dry chemical, CO2, or water spray		
<i>HMS Hazard:</i> Health - 1 Flammability - 2 Reactivity - 0 Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least		
<i>Special Fire Fighting Procedures:</i> N/A		
<i>Unusual Fire & Explosion Hazard:</i> Vapors may travel distance to ignition source and flash back.		

6. REACTIVITY DATA

<i>Stability:</i>	<i>Conditions to avoid:</i> Heat, sources of ignition
<input checked="" type="checkbox"/> Stable	<i>Incompatibility (Materials to avoid):</i> Contact with nitric acid or other strong oxidizers
<input type="checkbox"/> Unstable	<i>Hazardous Decomposition Products:</i> COx

7. HEALTH HAZARD DATA

<i>Toxicity:</i> oral LD50: 143 mg/kg, methyl alcohol; 1400 mg/kg, ethyl alcohol			
<i>Primary Route of Entry:</i>	<input checked="" type="checkbox"/> Inhalation	<input checked="" type="checkbox"/> Skin	<i>Carcinogenicity:</i> <input type="checkbox"/> None <input checked="" type="checkbox"/> NTP
	<input checked="" type="checkbox"/> Ingestion	<input type="checkbox"/> N/A	<input type="checkbox"/> OSHA <input type="checkbox"/> IARC
<i>Other Health Related Comments:</i> CA Prop. 65 Warning: This product contains phenolphthalein, a chemical known to the state of Calif. to cause cancer			
<i>Target Organs:</i> Central Nervous System			
<i>Signs and symptoms of exposure:</i> Vapors and liquid harmful. Inhalation can cause headache, dizziness, nausea. May be irritating to eyes and skin. Harmful if swallowed; Ingestion may be fatal or cause blindness.			
<i>Medical Condition Aggravated by Exposure:</i> N/A			

8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush thoroughly with water, contact physician.
<i>Ingestion:</i> Give plenty of water. Call a physician immediately.
<i>Inhalation:</i> Remove to fresh air.
<i>Skin Contact:</i> Flush skin thoroughly. Wash with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Eliminate all sources of ignition. Absorb on paper. Evaporate on iron pan in hood.
<i>Disposal:</i> Small quantity: Flush down drain with excess water. Large quantity: Atomize into an incinerator. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

<i>In Handling:</i> <input checked="" type="checkbox"/> Gloves <input checked="" type="checkbox"/> Eye Protection <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Other: Lab Coat
<i>Ventilation:</i> <input type="checkbox"/> Normal <input checked="" type="checkbox"/> Mechanical <input type="checkbox"/> Respiratory Protection
<i>Work/Hygienic Practices:</i> Use with adequate ventilation and avoid contact with skin.

11. SPECIAL PRECAUTIONS

Do not use near heat or flame.
DATE: 8/24/1998

+ This is a toxic chemical subject to reporting requirements of section 313 of EPCRA and 40CFR372.

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TELEPHONE # FOR INFORMATION 410-778-3100

24 Hour Emergency Number (CHEM-TEL) 800-255-3924

1. PRODUCT IDENTIFICATION

Hydrogen Peroxide, 3%

Code Nr. 6091

Chlorine Reagent D

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Hydrogen Peroxide	7722-84-1		3	1 ppm	1 ppm

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Water to 100%		

4. PHYSICAL DATA

Appearance: Clear Colorless Liquid
Solubility in Water: Soluble Odor: None Boiling Point: ca. 100 degC Melt. Point: N/A
Vapor Pressure: ca. 17 @ 20degC Vapor Density: <1 (Air=1) pH: 6

5. FIRE AND EXPLOSION DATA

Flash Point (method used): N/A Flammable Limit: LEL: N/A UEL: N/A
Extinguishing Media: Not a fire hazard
HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 0 Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Special Fire Fighting Procedures:

N/A

Unusual Fire & Explosion Hazard:

N/A

6. REACTIVITY DATA

Stability: Stable Conditions to avoid: Heat, light
Incompatibility (Materials to avoid): Ammonia, carbonates, organic materials
Hazardous Decomposition Products: N/A

7. HEALTH HAZARD DATA

Toxicity: oral rat LD50: 1518 mg/kg for hydrogen peroxide, concentrated

Primary Route of Entry: Inhalation Skin Carcinogenicity: None NTP
 Ingestion N/A OSHA LARC

Other Health Related Comments:

Target Organs: N/A

Signs and symptoms of exposure:

May irritate eyes and skin. Harmful if swallowed.

Medical Condition Aggravated by Exposure: N/A

8. EMERGENCY FIRST AID PROCEDURES

Eye Contact: Flush with water for 15 minutes.

Ingestion: Drink plenty of water. Consult physician.

Inhalation:

N/A

Skin Contact:

Flush with water. Wash thoroughly with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

Spill and Leak:

Small quantity: Mop up and dilute with water. Flush to drain with water.

Disposal:

Dilute with water and flush to drain with water. Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

In Handling: Gloves Eye Protection N/A Other: Lab Coat

Ventilation: Normal Mechanical Respiratory Protection

Work/Hygienic Practices: Avoid contact with eyes, skin.

11. SPECIAL PRECAUTIONS

Store away from sunlight and heat.

DATE: 2/24/2000

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TELEPHONE # FOR INFORMATION 410-778-3100

Chemical Emergencies Only (Spill, Fire, Accident): Chemtrec 800-424-9300

Medical Emergency: Local Poison Control Center

1. PRODUCT IDENTIFICATION

Chloride Reagent #1

Code Nr. **4069**

2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Potassium Chromate	7789-00-6		5	0.1 mg/cubic m as CrO3	0.05 mg/cubic m as Cr
† Silver nitrate	7761-88-8		<0.1	0.01 mg/cubic m as Ag	0.01 mg/cubic m as Ag

3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Water to 100%		

4. PHYSICAL DATA

Appearance: Clear Yellow Liquid
Solubility in Water: Soluble Odor: None Boiling Point: Unknown Melt Point: N/A
Vapor Pressure: Unknown Vapor Density: Unknown pH: 9

5. FIRE AND EXPLOSION DATA

Flash Point (method used): N/A Flammable Limit: LEL: N/A UEL: N/A
Extinguishing Media: Not a fire hazard
NFPA Hazard: Health - 2 Flammability - 0 Reactivity - 0 Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least
Special Fire Fighting Procedures:
N/A
Unusual Fire & Explosion Hazard:
N/A

6. REACTIVITY DATA

Stability: Stable Conditions to avoid: N/A
 Unstable Incompatibility (Materials to avoid): N/A
Hazardous Decompositions Products: N/A

7. HEALTH HAZARD DATA

Toxicity: oral mms LD50: 180 mg/kg for potassium chromate solid
Primary Route of Entry: Inhalation Skin Carcinogenicity: None NTP
 Ingestion N/A OSHA IARC
Other Health Related Comments:
IARC- 23, 205, 80. Warning! This product contains chromates, chemicals known to the state of Calif. to cause cancer
Target Organs: Blood, Eyes, Gastro-Intestinal System, Kidney, Liver, Lungs, Skin,
Signs and symptoms of exposure:
Toxic, irritant, sensitizer. Harmful if swallowed. Irritation of skin and gastrointestinal tract.
Medical Condition Aggravated by Exposure: N/A

8. EMERGENCY FIRST AID PROCEDURES

Eye Contact: Flush thoroughly with water for 15 minutes.
Ingestion: Induce vomiting. Consult a physician immediately.
Inhalation:
N/A
Skin Contact:
Flush with water. Remove affected clothing and wash skin with soap and water.

9. SPILL AND DISPOSAL PROCEDURES

Spill and Leak:
Wearing gloves, absorb on inert material, "kitty litter" or spill pads. Place in a clean, dry plastic pail with lid, & dispose of as hazardous waste. Do not flush chromates to sewer.
Disposal:
Dispose according to federal, state and local regulations.

10. PRECAUTIONARY MEASURES

In Handling: Gloves Eye Protection N/A Other: Lab Coat
Ventilation: Normal Mechanical Respiratory Protection
Work/Hygienic Practices: Avoid contact with skin and clothing. Wash after handling.

11. SPECIAL PRECAUTIONS

N/A

DATE: 11/12/1998 The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

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