

580

C08709  
C08710  
VA#051700

Issuing Date May-14-2015

## Safety Data Sheet

Revision Number 0

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

**Product identifier**

**Product name** Phosphorous Reagent #2

**Other means of identification**

**Product Code(s)** 5156  
**UN-No** 2790

**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 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

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

## EMERGENCY OVERVIEW

**WARNING****Hazard statements**

Causes skin irritation. Causes serious eye irritation.



**Appearance** Clear, colorless

**Physical state** liquid

**Odor** vinegar

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. 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. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash 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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Sodium molybdate dihydrate	10102-40-6	2.5
Acetic acid	64-19-7	10

### 4. FIRST AID MEASURES

#### First Aid Measures

<b>General advice</b>	Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.
<b>Eye contact</b>	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.
<b>Skin contact</b>	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.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Call a physician immediately.
<b><u>Self-protection of the first aider</u></b>	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

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.

#### Methods and material for containment and cleaning up

<b>Methods for containment</b>	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**

After cleaning, flush away traces with water. 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.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling**

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

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

**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Keep out of the reach of children.

**Incompatible Products**

Strong oxidizing agents. Metals. Alcohols. Amines.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium molybdate dihydrate 10102-40-6	TWA: 0.5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup>
Acetic acid 64-19-7	15 ppm STEL TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location.  
Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**

Wear safety glasses with side shields (or goggles). Avoid contact with eyes.

**Skin and body protection**

Gloves & Lab Coat. Impervious clothing. Protective gloves. Nitrile rubber.

**Respiratory protection**

Use only with adequate ventilation.

**Hygiene Measures**

Avoid contact with eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety practice. Wash hands and face 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	Odor	vinegar
Appearance	Clear, colorless		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH	3	No information available	
Melting point / freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	No information available		

Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	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 data available
Water solubility	Soluble in water
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. Exposure to light.
Incompatible materials	Strong oxidizing agents. Metals. Alcohols. Amines.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions -. Carbon oxides (COx). Sodium oxides.

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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium molybdate dihydrate 10102-40-6	= 4 g/kg ( Rat ) = 4000 mg/kg ( Rat )	Not Established	> 2080 mg/m <sup>3</sup> ( Rat ) 4 h
Acetic acid 64-19-7	= 3310 mg/kg ( Rat )	= 1060 mg/kg ( Rabbit )	= 11.4 mg/L ( Rat ) 4 h

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

Chemical name	ACGIH	IARC	NTP	OSHA
Sodium molybdate dihydrate 10102-40-6	A3	Not Established	Not Established	-
Acetic acid 64-19-7	-	Not Established	Not Established	-

A3 - Animal Carcinogen

ATEmix (oral)	27426
ATEmix (dermal)	10600 mg/kg mg/l

**12. ECOLOGICAL INFORMATION**



**Ecotoxicity****Unknown Aquatic Toxicity** 2.5 % 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)
Sodium molybdate dihydrate 10102-40-6	Not Established	Not Established	Not Established
Acetic acid 64-19-7	Not Established	75: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Pimephales promelas mg/L LC50 static	47: 24 h Daphnia magna mg/L EC50 65: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Sodium molybdate dihydrate 10102-40-6	Not Established
Acetic acid 64-19-7	-0.31

**13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Dispose of contents/containers in accordance with local regulations.

**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
Sodium molybdate dihydrate 10102-40-6	Not Established	-	Not Established	Not Established
Acetic acid 64-19-7	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Sodium molybdate dihydrate 10102-40-6	Not Established	Not Established	Not Established	Not Established
Acetic acid 64-19-7	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Sodium molybdate dihydrate 10102-40-6	-
Acetic acid 64-19-7	-

**14. TRANSPORT INFORMATION****DOT**

Proper shipping name ACETIC ACID SOLUTION (>10%, <50%)  
 UN-No 2790  
 Hazard Class 8  
 Packing group III

**ICAO**

Not regulated

**IATA** Not regulated  
 Proper shipping name ACETIC ACID SOLUTION (>10%, <50%)  
 UN-No 2790  
 Hazard Class 8  
 Packing group III

**IMDG/IMO** Not regulated  
 Proper shipping name ACETIC ACID SOLUTION (>10%, <50%)  
 UN-No 2790  
 Hazard Class 8  
 Packing group III

**RID** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA Complies  
 DSL/NDSL Does not comply  
 EINECS/ELINCS Does not comply  
 ENCS Complies  
 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 does not contain any 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 %
Sodium molybdate dihydrate 10102-40-6	Not Established
Acetic acid 64-19-7	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)**

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
Sodium molybdate dihydrate 10102-40-6	Not Established	Not Established	Not Established	Not Established
Acetic acid	5000 lb	Not Established	Not Established	X



64-19-7			
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**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
Sodium molybdate dihydrate 10102-40-6	-	Not Established	-
Acetic acid 64-19-7	5000 lb	Not Established	RQ 5000 lb final RQ RQ 2270 kg final RQ

**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
Sodium molybdate dihydrate 10102-40-6	Not Established	Not Established	Not Established
Acetic acid 64-19-7	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazard 2	Flammability 0	Instability 0	Physical and Chemical Hazards N/A
<b>HMIS</b>	Health hazard 2	Flammability 0	Stability 1	



Health Hazard	<b>2</b>
Fire Hazard	<b>0</b>
Reactivity	<b>1</b>

Prepared by Regulatory Affairs Department  
 Issuing Date May-14-2015  
 Revision Date May-14-2015  
 Reason for revision New US GHS format

**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

**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  
Chester town, 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**

<b>General advice</b>	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.
<b>Eye contact</b>	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.
<b>Skin contact</b>	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.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Call a physician immediately. Never give anything by mouth to an unconscious person.
<b>Self-protection of the first aider</b>	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**

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

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	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**

<b>Physical state</b>	liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Clear pink		
<b>Property</b>	<b>Values</b>	<b>Remarks - Method</b>	
<b>pH</b>	<1	No information available	
<b>Melting point / freezing point</b>	No information available		
<b>Boiling point / boiling range</b>	No information available		
<b>Flash point</b>	No information available		
<b>Evaporation rate</b>			
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			



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 (SOx). 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/NDL                              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/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 %
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



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	<b>2</b>
Fire Hazard	<b>0</b>
Reactivity	<b>0</b>

Prepared by    Regulatory Affairs Department  
 Issuing Date    May-14-2015  
 Revision Date    May-27-2015  
 Reason for revision                                      New US GHS format

**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

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

**Product identifier**

Product name NITRATE REAGENT #2

**Other means of identification**

Product Code(s) 5147

**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

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

### EMERGENCY OVERVIEW

**WARNING**

**Hazard statements**

Harmful if swallowed. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure.



**Appearance** Off-white

**Physical state** powder

**Odor** Odorless

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray.

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell.

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.



Take off contaminated clothing and wash before reuse

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

Call a POISON CENTER or doctor/physician if you feel unwell

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 cool.

**Precautionary Statements - Disposal**

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

**Other Hazards**

Very toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Zinc; Zinc Dust	7440-66-6	<1
Manganese sulfate monohydrate	10034-96-5	1.5
Sucrose	57-50-1	30
Barium sulfate	7727-43-7	67

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Take off contaminated clothing and wash before reuse. Consult a physician.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Drink plenty of water. Consult a physician.
<b>Self-protection of the first aider</b>	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. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

**Sensitivity to Static Discharge**

Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

**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** See section 8. Wear protective gloves/clothing and eye/face protection. Ensure adequate ventilation.

**Environmental precautions** See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

**Methods for cleaning up** Avoid dust formation. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

## 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.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, moisture, and incompatibles. Keep away from heat. Keep out of the reach of children.

**Incompatible Products** Strong acids. Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc; Zinc Dust 7440-66-6	-	-	Not Established
Manganese sulfate monohydrate 10034-96-5	TWA: 0.02 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	Ceiling: 5 mg/m <sup>3</sup>	IDLH: 500 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Sucrose 57-50-1	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>
Barium sulfate 7727-43-7	TWA: 5 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>

### Appropriate engineering controls

**Engineering Measures** Showers. Eyewash stations. Ensure adequate ventilation, especially in confined areas.

### 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.

**Respiratory protection** None required under normal usage. 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. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Wash hands and face before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES



**Information on basic physical and chemical properties**

Physical state powder  
 Appearance Off-white Odor Odorless

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6	
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	Partly soluble	
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** Heat, flames and sparks. Exposure to air or moisture over prolonged periods.  
**Incompatible materials** Strong acids. Strong oxidizing agents.  
**Hazardous decomposition products** Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Sulfur oxides (SOx). Barium oxides. Carbon oxides (COx).

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc; Zinc Dust 7440-66-6	Not Established	Not Established	Not Established
Manganese sulfate monohydrate 10034-96-5	= 782 mg/kg ( Rat )	Not Established	Not Established
Sucrose 57-50-1	= 29700 mg/kg ( Rat )	Not Established	Not Established
Barium sulfate 7727-43-7	Not Established	Not Established	Not Established

**Information on toxicological effects**

Chemical name	ACGIH	IARC	NTP	OSHA
Zinc; Zinc Dust 7440-66-6	Not Established	Not Established	Not Established	Not Established
Manganese sulfate monohydrate 10034-96-5	Not Established	Not Established	Not Established	Not Established
Sucrose 57-50-1	Not Established	Not Established	Not Established	Not Established
Barium sulfate 7727-43-7	Not Established	Not Established	Not Established	Not Established

**Chronic toxicity** No known effect. None known.

ATEmix (oral) 737  
ATEmix (inhalation-dust/mist) 2.3 mg/l

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Unknown Aquatic Toxicity** 98.02 % 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)
Zinc; Zinc Dust 7440-66-6	0.09 - 0.125: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.11 - 0.271: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	0.211 - 0.269: 96 h Pimephales promelas mg/L LC50 semi-static 2.16 - 3.05: 96 h Pimephales promelas mg/L LC50 flow-through 0.24: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.41: 96 h Oncorhynchus mykiss mg/L LC50 static 0.45: 96 h Cyprinus carpio mg/L LC50 semi-static 0.59: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 2.66: 96 h Pimephales promelas mg/L LC50 static 3.5: 96 h Lepomis macrochirus mg/L LC50 static 30: 96 h Cyprinus carpio mg/L LC50 7.8: 96 h Cyprinus carpio mg/L LC50 static	0.139 - 0.908: 48 h Daphnia magna mg/L EC50 Static
Manganese sulfate monohydrate 10034-96-5	Not Established	Not Established	Not Established
Sucrose 57-50-1	Not Established	Not Established	Not Established
Barium sulfate 7727-43-7	Not Established	Not Established	Not Established

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Zinc; Zinc Dust 7440-66-6	Not Established
Manganese sulfate monohydrate 10034-96-5	Not Established
Sucrose 57-50-1	Not Established
Barium sulfate 7727-43-7	Not Established

**13. DISPOSAL CONSIDERATIONS**

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



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
Zinc; Zinc Dust 7440-66-6	Not Established	-	Not Established	Not Established
Manganese sulfate monohydrate 10034-96-5	Not Established	-	Not Established	Not Established
Sucrose 57-50-1	Not Established	-	Not Established	Not Established
Barium sulfate 7727-43-7	(hazardous constituent - no waste number)	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Zinc; Zinc Dust 7440-66-6	Not Established	Not Established	Not Established	Not Established
Manganese sulfate monohydrate 10034-96-5	Not Established	Not Established	Not Established	Not Established
Sucrose 57-50-1	Not Established	Not Established	Not Established	Not Established
Barium sulfate 7727-43-7	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Zinc; Zinc Dust 7440-66-6	-
Manganese sulfate monohydrate 10034-96-5	-
Sucrose 57-50-1	-
Barium sulfate 7727-43-7	-

**14. TRANSPORT INFORMATION**

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

**15. REGULATORY INFORMATION**

International Inventories

TSCA	Complies
DSL/NDL	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 %
Zinc; Zinc Dust 7440-66-6	1.0
Manganese sulfate monohydrate 10034-96-5	1.0
Sucrose 57-50-1	Not Established
Barium sulfate 7727-43-7	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
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
Zinc; Zinc Dust 7440-66-6	Not Established	X	X	Not Established
Manganese sulfate monohydrate 10034-96-5	Not Established	Not Established	Not Established	Not Established
Sucrose 57-50-1	Not Established	Not Established	Not Established	Not Established
Barium sulfate 7727-43-7	Not Established	Not Established	Not Established	Not Established

**CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
Zinc; Zinc Dust 7440-66-6	1000 lb	Not Established	RQ 454 kg final RQ RQ 1000 lb final RQ
Manganese sulfate monohydrate 10034-96-5	-	Not Established	-
Sucrose 57-50-1	-	Not Established	-
Barium sulfate 7727-43-7	-	Not Established	-

**US State Regulations**

**California Proposition 65**

Chemical name	California Proposition 65
Zinc; Zinc Dust 7440-66-6	Not Established
Manganese sulfate monohydrate	Not Established



10034-96-5	
Sucrose 57-50-1	Not Established
Barium sulfate 7727-43-7	Not Established

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc; Zinc Dust 7440-66-6	X	X	X
Manganese sulfate monohydrate 10034-96-5	X	Not Established	X
Sucrose 57-50-1	Not Established	X	X
Barium sulfate 7727-43-7	X	X	X

**CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazard 1	Flammability 1	Instability 0	Physical and Chemical Hazards N/A
<b>HMS</b>	Health hazard 1	Flammability 1	Stability 0	



Health Hazard	<b>1</b>
Fire Hazard	<b>1</b>
Reactivity	<b>0</b>

Prepared by Regulatory Affairs Department  
 Issuing Date Jun-01-2015  
 Revision Date Jul-24-2015  
 Reason for revision New US GHS format  
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

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

**Product identifier**

Product name **Potassium Reagent B Tablets**

**Other means of identification**

Product Code(s) **5161**

UN-No **1500**

**Recommended use of the chemical and restrictions on use**

Recommended Use Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.

**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 3
Carcinogenicity	Category 1B

### EMERGENCY OVERVIEW

**DANGER**

**Hazard statements**  
Toxic if swallowed. May cause cancer.



**Appearance** Gold **Physical state** Tablet **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. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

**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 ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



IF SWALLOWED: Immediately call a poison center or doctor/physician. Rinse mouth.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

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

**Other Hazards**

Very toxic to aquatic life with long lasting effects Very toxic to aquatic life

**Unknown Acute Toxicity**

29% of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS\*

Chemical name	CAS No	Weight-%
Trisodium hexanitrocobaltate	13600-98-1	29
Sodium nitrite	7632-00-0	60

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Keep out of reach of children.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
<b>Skin contact</b>	Wash off with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician.
<b>Inhalation</b>	Remove to fresh air. Consult a physician.
<b>Ingestion</b>	Induce vomiting as directed by medical personnel. Drink plenty of water. Call a physician or poison control center immediately. Rinse mouth.
<b>Self-protection of the first aider</b>	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**

Water spray. CO<sub>2</sub>, 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** Use personal protective equipment. Avoid dust formation. Avoid contact with eyes, skin and clothing.

**Methods and material for containment and cleaning up**

**Methods for containment** Sweep up in a manner that does not disperse dust and shovel into suitable containers for disposal.

**Methods for cleaning up** Keep in suitable and closed containers for disposal. Prevent product and washings from entering drains, sewers or surface water due to high toxicity to aquatic organisms.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Avoid contact with eyes, skin and clothing. Avoid dust formation in confined areas. Avoid breathing dust. Do not taste or swallow. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, or smoke when using this product.

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

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Keep out of the reach of children.

**Incompatible Products** Strong reducing agents. Organic material. Strong acids. Finely powdered metals.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trisodium hexanitrocobaltate 13600-98-1	TWA: 0.02 mg/m <sup>3</sup> Co	-	Not Established
Sodium nitrite 7632-00-0	-	-	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.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

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

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Tablet	<b>Odor</b>	None
<b>Appearance</b>	Gold		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH	6	(1 tablet in 10mL of water)	
Melting point / freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	Not Applicable		



Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	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.
Hazardous Reactions	Substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Contact with oxidizable substances may cause extremely violent combustion.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Moisture. Combustible materials. Excessive heat.
Incompatible materials	Strong reducing agents. Organic material. Strong acids. Finely powdered metals.
Hazardous decomposition products	Nitrogen oxides (NOx). Sodium oxides. May produce the following when heated to decomposition: Toxic metal fumes.

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

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Trisodium hexanitrocobaltate 13600-98-1	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	= 85 mg/kg ( Rat )	Not Established	= 5.5 mg/L ( Rat ) 4 h

**Information on toxicological effects**

Chemical name	ACGIH	IARC	NTP	OSHA
Trisodium hexanitrocobaltate 13600-98-1	A3	Group 2B	Not Established	X
Sodium nitrite 7632-00-0	Not Established	Group 2A	Not Established	X

A3 - Animal Carcinogen

Group 2B - Possibly Carcinogenic to Humans

X - Present

ATEmix (oral) 100.00

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Unknown Aquatic Toxicity** 29 % 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)
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	Not Established	0.092 - 0.13: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.4 - 0.6: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.65 - 1: 96 h Oncorhynchus mykiss mg/L LC50 static 0.19: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 2.3: 96 h Pimephales promelas mg/L LC50 flow-through 20: 96 h Pimephales promelas mg/L LC50 static	Not Established

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Trisodium hexanitritocobaltate 13600-98-1	Not Established
Sodium nitrite 7632-00-0	-3.7

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Dispose of waste product or used containers according to local regulations. 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
Trisodium hexanitritocobaltate 13600-98-1	Not Established	-	Not Established	Not Established
Sodium nitrite 7632-00-0	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Trisodium hexanitritocobaltate 13600-98-1	Toxic
Sodium nitrite 7632-00-0	Toxic Ignitable Reactive



**14. TRANSPORT INFORMATION****DOT**

Proper shipping name	SODIUM NITRITE
UN-No	1500
Hazard Class	5.1
Subsidiary class	6.1
Packing group	III

**IATA**

Proper shipping name	SODIUM NITRITE
UN-No	1500
Hazard Class	5.1
Subsidiary class	6.1
Packing group	III

**IMDG/IMO**

Proper shipping name	SODIUM NITRITE
UN-No	1500
Hazard Class	5.1
Subsidiary class	6.1
Packing group	III

**15. REGULATORY INFORMATION****International Inventories**

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
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 %
Trisodium hexanitritocobaltate 13600-98-1	0.1
Sodium nitrite 7632-00-0	1.0

**SARA 311/312 Hazard Categories**

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

**CWA (Clean Water Act)**

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	100 lb	Not Established	Not Established	X

**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
Trisodium hexanitritocobaltate 13600-98-1	-	Not Established	-
Sodium nitrite 7632-00-0	100 lb	Not Established	RQ 100 lb final RQ RQ 45.4 kg final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical name	California Proposition 65
Trisodium hexanitritocobaltate 13600-98-1	Not Established
Sodium nitrite 7632-00-0	Not Established

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Trisodium hexanitritocobaltate 13600-98-1	X	Not Established	X
Sodium nitrite 7632-00-0	X	X	X

**CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**

**16. OTHER INFORMATION**

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





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Health Hazard	<b>2</b>
Fire Hazard	<b>0</b>
Reactivity	<b>2</b>

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

Regulatory Affairs Department  
Feb-14-2012  
Update to Format

**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 Safety Data Sheet

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier****Product name** Potassium Reagent B Tablets**Other means of identification****Product Code(s)** 5161A  
**UN-No** 1500**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.**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 3
Carcinogenicity	Category 1B

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

Toxic if swallowed. May cause cancer.

**Appearance** Gold**Physical state** Tablet**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. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention.



IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, Rinse mouth

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

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

**Other Hazards**

Very toxic to aquatic life with long lasting effects

**Unknown Acute Toxicity**

29% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Trisodium hexanitrocobaltate	13600-98-1	29
Sodium nitrite	7632-00-0	60

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Keep out of reach of children.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	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.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician.
<b>Ingestion</b>	Call a physician or poison control center immediately. Induce vomiting, but only if victim is fully conscious. Rinse mouth. Drink plenty of water.
<b>Self-protection of the first aider</b>	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**

<b>Personal precautions</b>	Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Avoid dust formation.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	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 / national regulations (see Section 13).
<b>Methods for cleaning up</b>	Prevent product and washings from entering drains, sewers or surface water due to high toxicity to aquatic organisms.

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

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Avoid dust formation. 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**

<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children. Store away from incompatible materials.
<b>Incompatible Products</b>	Strong reducing agents. Organic material. Strong acids. Finely powdered metals.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trisodium hexanitrocobaltate 13600-98-1	TWA: 0.02 mg/m <sup>3</sup>	-	Not Established
Sodium nitrite 7632-00-0	-	-	Not Established

**Appropriate engineering controls**

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems.
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**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Protective gloves. Nitrile rubber. Gloves & Lab Coat.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.
<b>Hygiene Measures</b>	Do not eat, drink or smoke when using this product.

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

<b>Physical state</b>	Tablet	<b>Odor</b>	None
<b>Appearance</b>	Gold		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	6	(1 tablet in 10mL of water)	
<b>Melting point / freezing point</b>	No information available		
<b>Boiling point / boiling range</b>	No information available		
<b>Flash point</b>	No information available		



Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	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**

<b>Stability</b>	Stable.
<b>Hazardous Reactions</b>	Substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Contact with oxidizable substances may cause extremely violent combustion.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Moisture, Combustible materials, Excessive heat.
<b>Incompatible materials</b>	Strong reducing agents, Organic material, Strong acids, Finely powdered metals.
<b>Hazardous decomposition products</b>	Nitrogen oxides (NOx), Sodium oxides, May produce the following when heated to decomposition: Toxic metal fumes.

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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	= 85 mg/kg ( Rat )	Not Established	= 5.5 mg/L ( Rat ) 4 h

**Information on toxicological effects**

Chemical name	ACGIH	IARC	NTP	OSHA
Trisodium hexanitritocobaltate 13600-98-1	A3	Group 2B	Not Established	X
Sodium nitrite 7632-00-0	-	Group 2A	Not Established	X

A3 - Animal Carcinogen

Group 2B - Possibly Carcinogenic to Humans

X - Present

ATEmix (oral) 100 mg/kg

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Unknown Aquatic Toxicity** 29 % 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)
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	Not Established	0.092 - 0.13: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.4 - 0.6: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.65 - 1: 96 h Oncorhynchus mykiss mg/L LC50 static 0.19: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 2.3: 96 h Pimephales promelas mg/L LC50 flow-through 20: 96 h Pimephales promelas mg/L LC50 static	Not Established

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Trisodium hexanitritocobaltate 13600-98-1	Not Established
Sodium nitrite 7632-00-0	-3.7

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Dispose of waste product or used containers according to local regulations. 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
Trisodium hexanitritocobaltate 13600-98-1	Not Established	-	Not Established	Not Established
Sodium nitrite 7632-00-0	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Trisodium hexanitritocobaltate 13600-98-1	-
Sodium nitrite 7632-00-0	-



**14. TRANSPORT INFORMATION**

**DOT**

Proper shipping name      SODIUM NITRITE  
 UN-No                              1500  
 Hazard Class                    5.1  
 Subsidiary class                6.1  
 Packing group                    III

**IATA**

Proper shipping name      SODIUM NITRITE  
 UN-No                              1500  
 Hazard Class                    5.1  
 Subsidiary class                6.1  
 Packing group                    III

**IMDG/IMO**

Proper shipping name      SODIUM NITRITE  
 UN-No                              1500  
 Hazard Class                    5.1  
 Subsidiary class                6.1  
 Packing group                    III

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA                                      Complies  
 DSL/NDSL                                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/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 %
Trisodium hexanitritocobaltate 13600-98-1	0.1
Sodium nitrite 7632-00-0	1.0

**SARA 311/312 Hazard Categories**

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

**CWA (Clean Water Act)**

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Trisodium hexanitritocobaltate 13600-98-1	Not Established	Not Established	Not Established	Not Established
Sodium nitrite 7632-00-0	100 lb	Not Established	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
Trisodium hexanitritocobaltate 13600-98-1	-	Not Established	-
Sodium nitrite 7632-00-0	100 lb	Not Established	RQ 100 lb final RQ RQ 45.4 kg final RQ

**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
Trisodium hexanitritocobaltate 13600-98-1	X	Not Established	X
Sodium nitrite 7632-00-0	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazard 2	Flammability 0	Instability 0	<b>Physical and Chemical Hazards OX</b>
<b>HMS</b>	Health hazard 2	Flammability 0	Stability 2	



Health Hazard	<b>2</b>
Fire Hazard	<b>0</b>
Reactivity	<b>2</b>

Prepared by	Regulatory Affairs Department
Issuing Date	Apr-30-2015
Revision Date	Apr-30-2015
Reason for revision	New US GHS format

**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

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

**Product identifier**  
**Product name** Potassium Reagent C

**Other means of identification**  
**Product Code(s)** 5162  
**UN-No** 1170

**Recommended use of the chemical and restrictions on use**  
**Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.

**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
Serious eye damage/eye irritation	Category 2A
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1A
Specific target organ toxicity (single exposure)	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Physical hazards Flammable Liquids.	Category 2

### EMERGENCY OVERVIEW

**DANGER**

**Hazard statements**

Harmful if swallowed. Causes serious eye irritation. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. .  
 Highly flammable liquid and vapor.





<b>Appearance</b> Clear yellow solution	<b>Physical state</b> liquid	<b>Odor</b> Alcohol
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**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. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

**Precautionary Statements - 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 eye irritation persists: Get medical advice/attention.  
 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: Call a POISON CENTER or doctor/physician if you feel unwell, Rinse mouth  
 In case of fire: Use CO2, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up. Store in a well-ventilated place. Keep cool.

**Precautionary Statements - Disposal**

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

**Other Hazards**

Toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Methyl alcohol	67-56-1	4
Ethyl alcohol	64-17-5	80

### 4. FIRST AID MEASURES

**First Aid Measures**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing. Consult a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
<b>Skin contact</b>	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.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Call a physician immediately.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. For personal protection see Section 8.

### 5. FIRE-FIGHTING MEASURES



**Suitable extinguishing media**

Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

**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** See section 8. Ensure adequate ventilation. Remove all sources of ignition.

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Dispose according to federal, state, and local regulations.

**Methods for cleaning up** After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Use only in area provided with appropriate exhaust ventilation. 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.

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

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Do not store near combustible materials. Keep out of the reach of children.

**Incompatible Products** Strong oxidizing agents. Strong acids.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl alcohol 67-56-1	250 ppm STEL TWA: 200 ppm	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup>
Ethyl alcohol 64-17-5	1000 ppm STEL	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

**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. Nitrile rubber. Gloves & Lab Coat.



**Respiratory protection** Use only with adequate ventilation.  
**Hygiene Measures** Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid	<b>Odor</b>	Alcohol
<b>Appearance</b>	Clear yellow solution		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
	pH	Not Applicable	
<b>Melting point / freezing point</b>	No information available		
<b>Boiling point / boiling range</b>	78.5 °C / 173.3 °F for SDA (3A) Ethyl Alcohol		
<b>Flash point</b>	16 °C / 60.8 °F	for SDA (3A) Ethyl Alcohol	
<b>Evaporation rate</b>			
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	19%		
<b>Lower flammability limit:</b>	3.3%		
<b>Vapor pressure</b>	48	mmHg @ 20°C for SDA (3A) Ethyl Alcohol	
<b>Vapor density</b>	1.6	@ 20°C (Air=1) for SDA (3A) Ethyl Alcohol	
<b>Specific gravity</b>	No information available		
<b>Water solubility</b>	No information available		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Kinematic viscosity</b>	No information available		
<b>Dynamic viscosity</b>	No information available		
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		

### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended storage conditions.  
**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid** Heat, flames and sparks.  
**Incompatible materials** Strong oxidizing agents. Strong acids.  
**Hazardous decomposition products** Carbon oxides (COx).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl alcohol	= 6200 mg/kg ( Rat )	= 15800 mg/kg ( Rabbit )	= 22500 ppm ( Rat ) 8 h = 64000

67-56-1			ppm ( Rat ) 4 h
Ethyl alcohol 64-17-5	= 7060 mg/kg ( Rat )	Not Established	= 124.7 mg/L ( Rat ) 4 h

**Information on toxicological effects**

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Methyl alcohol 67-56-1	Not Established	Not Established	Not Established	Not Established
Ethyl alcohol 64-17-5	A3	Group 1	Known	X

*Known - Known Carcinogen*

**Chronic toxicity**

Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Prolonged skin contact may cause skin irritation and/or dermatitis.

ATEmix (oral)	1948
ATEmix (dermal)	7500 mg/kg
ATEmix (inhalation-dust/mist)	12.5 mg/l

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Unknown Aquatic Toxicity** 15.9 % 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)
Methyl alcohol 67-56-1	Not Established	13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	Not Established
Ethyl alcohol 64-17-5	Not Established	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability**

Ethanol: When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material may evaporate to a moderate extent. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to be readily removed from the atmosphere by dry and wet deposition. When released into the air, this material is expected to have a half-life between 1 and 10 days.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Methyl alcohol 67-56-1	-0.77
Ethyl alcohol 64-17-5	-0.32

## 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
Methyl alcohol 67-56-1	Not Established	Included in waste stream: F039	Not Established	Ignitable waste
Ethyl alcohol 64-17-5	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Methyl alcohol 67-56-1	Not Established	Not Established	Not Established	Not Established
Ethyl alcohol 64-17-5	Not Established	Not Established	Not Established	Not Established

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Methyl alcohol 67-56-1	-
Ethyl alcohol 64-17-5	-

#### 14. TRANSPORT INFORMATION

##### DOT

Proper shipping name      ETHANOL SOLUTION (Ethyl Alcohol Solution)  
 UN-No                              1170  
 Hazard Class                      3  
 Packing group                      II

##### IATA

Proper shipping name      ETHANOL SOLUTION (Ethyl Alcohol Solution)  
 UN-No                              1170  
 Hazard Class                      3  
 Packing group                      II

##### IMDG/IMO

Proper shipping name      ETHANOL SOLUTION (Ethyl Alcohol Solution)  
 UN-No                              1170  
 Hazard Class                      3  
 Packing group                      II

#### 15. REGULATORY INFORMATION

##### International Inventories

TSCA                              Does not comply  
 DSL/NDSL                      Complies  
 EINECS/ELINCS              Complies  
 ENCS                              Does not comply  
 IECSC                              Complies  
 KECL                              Complies  
 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  
 IECS - 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 %
Methyl alcohol 67-56-1	1.0
Ethyl alcohol 64-17-5	Not Established

**SARA 311/312 Hazard Categories**

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

**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
Methyl alcohol 67-56-1	Not Established	Not Established	Not Established	Not Established
Ethyl alcohol 64-17-5	Not Established	Not Established	Not Established	Not Established

**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
Methyl alcohol 67-56-1	5000 lb	Not Established	RQ 5000 lb final RQ RQ 2270 kg final RQ
Ethyl alcohol 64-17-5	-	Not Established	-

**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

(Ethyl alcohol is only considered a Proposition 65 cancer and developmental hazard when it is ingested as an alcoholic beverage)

Chemical name	California Proposition 65
Methyl alcohol 67-56-1	Developmental
Ethyl alcohol 64-17-5	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methyl alcohol 67-56-1	X	X	X
Ethyl alcohol 64-17-5	X	X	X

**16. OTHER INFORMATION**



<u>NFPA</u>	Health hazard 2	Flammability 3	Instability 0	Physical and Chemical Hazards N/A
<u>HMIS</u>	Health hazard 2	Flammability 3	Stability 0	



HEALTH	2
FLAMMABILITY	3
REACTIVITY	0

Prepared by Regulatory Affairs Department  
Issuing Date Jun-08-2015  
Revision Date Jun-08-2015  
Reason for revision (M)SDS sections updated 1 15 Update to Format

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

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

**Product identifier**

**Product name** UNIVERSAL EXTRACTING SOLUTION CONCENTRATED

**Other means of identification**

**Product Code(s)** 5227

**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**

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

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

### EMERGENCY OVERVIEW

**WARNING**

**Hazard statements**

Causes skin irritation. Causes serious eye irritation.



**Appearance** Clear, colorless

**Physical state** liquid

**Odor** vinegar

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**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. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash 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.



**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool.

**Other Hazards**

May be harmful if swallowed May be harmful in contact with skin

**3. COMPOSITION/INFORMATION ON INGREDIENTS\***

Chemical name	CAS No	Weight-%
Acetic acid	64-19-7	18

**4. FIRST AID MEASURES**

**First Aid Measures**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	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.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Drink plenty of water. Consult a physician if necessary.
<b>Self-protection of the first aider</b>	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. Use personal protection recommended in Section 8.

**5. FIREFIGHTING MEASURES**

**Suitable extinguishing media**

Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Avoid contact with the skin and the eyes. See section 8.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Absorb/Cover spill with sodium bicarbonate or sodium carbonate to neutralize, then place in a chemical waste container for later disposal. Dispose according to federal, state, and local regulations. Dispose according to local regulations, if permitted dissolve in water and rinse to drain.
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Methods for cleaning up After cleaning, flush away traces with water.

### 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.

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

**Storage** Do not store in metal containers. Store away from strong acids and oxidizers.

**Incompatible Products** Strong oxidizing agents. Strong acids. Metals.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetic acid 64-19-7	STEL: 15 ppm TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m <sup>3</sup>	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Measures** Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Wear safety glasses with side shields (or goggles). Avoid contact with eyes.

**Skin and body protection** Gloves & Lab Coat. Impervious clothing. Protective gloves. Nitrile rubber.

**Hygiene Measures** Avoid contact with eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

**Physical state** liquid  
**Appearance** Clear, colorless  
**Odor** vinegar

Property	Values	Remarks • Method
pH	5	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
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 data 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**

<b>Stability</b>	Stable under recommended storage conditions.
<b>Hazardous Reactions</b>	Hazardous polymerization does not occur.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Excessive heat.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong acids. Metals.
<b>Hazardous decomposition products</b>	Carbon oxides (COx). Nitrogen oxides (NOx). Sodium oxides.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Component identification**

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Acetic acid 64-19-7	= 3310 mg/kg ( Rat )	= 1060 mg/kg ( Rabbit )	= 11.4 mg/L ( Rat ) 4 h

**Information on toxicological effects**

**Carcinogenicity** There are no known carcinogenic chemicals in this product.

Chemical name	ACGIH	IARC	NTP	OSHA
Acetic acid 64-19-7	Not Established	Not Established	Not Established	Not Established

ATEmix (oral)	4,457.00 mg/kg
ATEmix (dermal)	4,351.00 mg/kg

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Acetic acid 64-19-7	Not Established	75: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Pimephales promelas mg/L LC50 static	47: 24 h Daphnia magna mg/L EC50 65: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Acetic acid 64-19-7	-0.31

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods** Dispose according to federal, state, and local regulations.

**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
Acetic acid 64-19-7	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Acetic acid 64-19-7	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Acetic acid 64-19-7	Toxic Corrosive Ignitable

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**ICAO** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**RID** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Complies
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 does not contain any 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 %
Acetic acid 64-19-7	Not Established

**SARA 311/312 Hazard Categories**

Acute health hazard	No
Chronic Health Hazard	No
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
Acetic acid 64-19-7	5000 lb	Not Established	Not Established	X

**CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
Acetic acid 64-19-7	5000 lb	Not Established	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations**

**California Proposition 65**

Chemical name	California Proposition 65
Acetic acid 64-19-7	Not Established

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Acetic acid 64-19-7	X	X	X

**CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**

Chemical name	CPSC (Consumer Product Safety Commission) - Specially Regulated Substances
Acetic acid 64-19-7	Add POISON to label, 16 CFR 1500.129

**16. OTHER INFORMATION**

**NFPA** Health hazard 1 Flammability 0 Instability 0 Physical and Chemical Hazards N/A  
Health hazard 1 Flammability 0 Stability 1



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Health Hazard	1
Fire Hazard	0
Reactivity	1

**Prepared by**  
**Issuing Date**  
**Disclaimer**

Regulatory Affairs Department  
Jun-01-2015

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



**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier****Product name** Phosphorus Tablet**Other means of identification****Product Code(s)** 5706A**Recommended use of the chemical and restrictions on use****Recommended Use** Test kit reagent for water testing. Industrial (not for food or food contact use). Laboratory chemicals.**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****OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**EMERGENCY OVERVIEW****Appearance** White **Physical state** Tablet ~0.1g (100mg) **Odor** Odorless**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep out of reach of children.

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.

Take off contaminated clothing and wash 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

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool.

**Other Hazards**

May be harmful if swallowed Harmful to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Stannous chloride	10025-61-1	<2
Potassium chloride	7447-40-7	99

### 4. FIRST AID MEASURES

#### First Aid Measures

<b>General advice</b>	Do not get in eyes, on skin, or on clothing. If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin contact</b>	Consult a physician if necessary. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
<b>Inhalation</b>	Remove to fresh air. Consult a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
<b>Ingestion</b>	Rinse mouth. Drink plenty of water. If symptoms persist or develop contact physician. Do NOT induce vomiting.
<b>Self-protection of the first aider</b>	Use personal protective equipment.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

#### 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

<b>Personal precautions</b>	Ensure adequate ventilation. Avoid dust formation. Use personal protection recommended in Section 8.
<b>Environmental precautions</b>	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

#### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Sweep up in a manner that does not disperse dust and shovel into suitable containers for disposal.
<b>Methods for cleaning up</b>	Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover



powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Do not eat, drink, or smoke when using this product. Avoid contact with eyes, skin and clothing. Wear personal protective equipment. Take off contaminated clothing and wash before reuse. Do not breathe mist/vapors/spray.

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

**Storage** Keep out of the reach of children. Keep container tightly closed in a dry and well-ventilated place.

**Incompatible Products** None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Stannous chloride 10025-61-1	-	-	Not Established
Potassium chloride 7447-40-7	-	-	Not Established

**Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Tightly fitting safety goggles.

**Skin and body protection** Gloves & Lab Coat.

**Respiratory protection** None required under normal usage.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and at the end of workday.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** Tablet ~0.1g (100mg)  
**Appearance** White **Odor** Odorless

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	3.25	(+/- 0.25)

<b>Melting point / freezing point</b>	No information available
<b>Boiling point / boiling range</b>	No information available
<b>Flash point</b>	Not Applicable 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	Soluble in water
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.
Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air or moisture over prolonged periods.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known.

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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Stannous chloride 10025-61-1	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	= 2600 mg/kg ( Rat )	Not Established	Not Established

**Information on toxicological effects**

Chemical name	ACGIH	IARC	NTP	OSHA
Stannous chloride 10025-61-1	Not Established	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established	Not Established

ATEmix (oral) 2478

**12. ECOLOGICAL INFORMATION****Ecotoxicity****Unknown Aquatic Toxicity** 1.59 % 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)
Stannous chloride 10025-61-1	Not Established	Not Established	Not Established



Potassium chloride 7447-40-7	2500: 72 h Desmodesmus subspicatus mg/L EC50	750 - 1020: 96 h Pimephales promelas mg/L LC50 static 1060: 96 h Lepomis macrochirus mg/L LC50 static	825: 48 h Daphnia magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static
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**Persistence and degradability**  
No information available.

**Bioaccumulation/Accumulation**  
No information available.

Chemical name	Log Pow
Stannous chloride 10025-61-1	Not Established
Potassium chloride 7447-40-7	Not Established

**13. DISPOSAL CONSIDERATIONS**

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

**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
Stannous chloride 10025-61-1	Not Established	-	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Stannous chloride 10025-61-1	Not Established	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Stannous chloride 10025-61-1	-
Potassium chloride 7447-40-7	-

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**  
 TSCA Does not comply  
 DSL/NDSL Does not comply  
 EINECS/ELINCS Does not comply  
 ENCS Does not comply

IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

**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 does not contain any 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 %
Stannous chloride 10025-61-1	Not Established
Potassium chloride 7447-40-7	Not Established

**SARA 311/312 Hazard Categories**

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

**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
Stannous chloride 10025-61-1	Not Established	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	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
Stannous chloride 10025-61-1	-	Not Established	-
Potassium chloride 7447-40-7	-	Not Established	-

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical name	California Proposition 65
Stannous chloride 10025-61-1	Not Established
Potassium chloride 7447-40-7	Not Established

**U.S. State Right-to-Know Regulations**



Chemical name	New Jersey	Massachusetts	Pennsylvania
Stannous chloride 10025-61-1	Not Established	Not Established	Not Established
Potassium chloride 7447-40-7	Not Established	Not Established	Not Established

**CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**

**16. OTHER INFORMATION**

<u>NFPA</u>	Health hazard 1	Flammability 0	Instability 0	Physical and Chemical Hazards N/A
<u>HMS</u>	Health hazard 1	Flammability 0	Stability 0	



Health Hazard	<b>1</b>
Fire Hazard	<b>0</b>
Reactivity	<b>0</b>

Prepared by	Regulatory Affairs Department
Issuing Date	Jun-01-2015
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Reason for revision	New US GHS format

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