

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** pH Phenol Red ColorQ TesTabs**Other means of identification****Product Code(s)** 3880A**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**OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

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

EMERGENCY OVERVIEW**Appearance** Peach **Physical state** solid Tablet **Odor** Odorless**Other Hazards**

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

Unknown Acute Toxicity

3.1% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% |
|--------------------|-----------|----------|
| Phenol red | 143-74-8 | 0.1 |
| Excipient | - | 15-20 |
| Potassium chloride | 7447-40-7 | 75-80 |

LaMotte Company proprietary formulation under the State of New Jersey Trade Secret Protection Law, assigned the NJTSRN 80100291-5074p, and may be disclosed only in a medical emergency

4. FIRST AID MEASURES

First Aid Measures

| | |
|--|--|
| General advice | Do not get in eyes, on skin, or on clothing. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. |
| Skin contact | If symptoms persist, call a physician. Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. |
| Inhalation | Not an expected route of exposure. |
| Ingestion | Drink plenty of water. Clean mouth with water. Consult a physician if necessary. |
| <u>Self-protection of the first aider</u> | Use personal protection recommended in Section 8. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |
| Notes to Physician | Treat symptomatically. |

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|----------------------------------|---|
| Personal precautions | Use personal protection recommended in Section 8. |
| Environmental precautions | See Section 12 for additional Ecological Information. |

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. Dispose according to local regulations, if permitted dissolve in water and rinse to drain. |
| Methods for cleaning up | After cleaning, flush away traces with water. If local regulations permit, 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. 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 direct sunlight. Protect from moisture. Keep out of the reach of children.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------------------------|-----------|----------|-----------------|
| Phenol red 143-74-8 | - | - | Not Established |
| Excipient | - | - | Not Established |
| Potassium chloride 7447-40-7 | - | - | Not Established |

Appropriate engineering controls

Engineering Measures None under normal use conditions.

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.

Respiratory protection None required under normal usage.

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 solid Tablet
Appearance Peach
Odor Odorless

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|--------------------------|-------------------------|
| pH | 7 | |
| 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 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. |
| Hazardous Reactions | Hazardous polymerization does not occur. |
| Hazardous polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Exposure to air or moisture over prolonged periods. Exposure to light. Excessive heat. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products | None under normal use. |

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

| | |
|---------------------|--|
| Inhalation | None known. |
| Eye contact | May cause temporary eye irritation. |
| Skin contact | Substance may cause slight skin irritation. |
| Ingestion | May be harmful if swallowed. May cause gastrointestinal discomfort if consumed in large amounts. |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------------|----------------------|-----------------|-----------------|
| Phenol red 143-74-8 | Not Established | Not Established | Not Established |
| Excipient | > 10 g/kg (Rat) | 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 |
|---------------------------------|-------|-----------------|-----------------|------|
| Phenol red 143-74-8 | - | Not Established | Not Established | - |
| Excipient | - | Not Established | Not Established | - |
| Potassium chloride 7447-40-7 | - | Not Established | Not Established | - |

ATEmix (oral) 3140 mg/kg

Oral LD50

Dermal LD50 No information available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Unknown Aquatic Toxicity 21.9 % 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) |
|---------------------------------|---|---|---|
| Phenol red 143-74-8 | Not Established | Not Established | Not Established |
| Excipient | 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 | 825: 48 h Daphnia magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static |

| | | | |
|--|--|-------------|--|
| | | LC50 static | |
|--|--|-------------|--|

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|---------------------------------|-----------------|
| Phenol red 143-74-8 | Not Established |
| Excipient | 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 |
|---------------------------------|-----------------|--------------------------|------------------------|------------------------|
| Phenol red 143-74-8 | Not Established | - | Not Established | Not Established |
| Excipient | 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 |
|---------------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Phenol red 143-74-8 | Not Established | Not Established | Not Established | Not Established |
| Excipient | 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 |
|---------------------------------|-----------------------------------|
| Phenol red 143-74-8 | - |
| Excipient | - |
| Potassium chloride 7447-40-7 | - |

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 | 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 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 % |
|---------------------------------|-------------------------------|
| Phenol red 143-74-8 | Not Established |
| Excipient | Not Established |
| Potassium chloride 7447-40-7 | 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)

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 |
|---------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Phenol red 143-74-8 | Not Established | Not Established | Not Established | Not Established |
| Excipient | 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 |
|------------------------|--------------------------|-----------------|----|
| Phenol red 143-74-8 | - | Not Established | - |
| Excipient | - | Not Established | - |

| | | | |
|---------------------------------|---|-----------------|---|
| Potassium chloride 7447-40-7 | - | Not Established | - |
|---------------------------------|---|-----------------|---|

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

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------------|-----------------|-----------------|-----------------|
| Phenol red 143-74-8 | Not Established | Not Established | Not Established |
| Excipient | Not Established | Not Established | Not Established |
| Potassium chloride 7447-40-7 | Not Established | Not Established | Not Established |

16. OTHER INFORMATION**NFPA**

Health hazard 0

Flammability 0

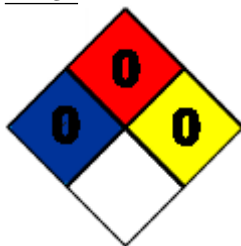
Instability 0

Physical and Chemical Hazards N/A**HMIS**

Health hazard 1

Flammability 0

Stability 0



| | |
|---------------|----------|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

Prepared by

Regulatory Affairs Department

Issuing Date

Apr-01-2015

Revision Date

Apr-28-2015

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 Hardness ColorQ Testabs

Other means of identification

Product Code(s) 3883A

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). Professional users.

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

Serious eye damage/eye irritation

Category 2

EMERGENCY OVERVIEW

WARNING

Hazard statements

Causes serious eye irritation.



Appearance Lavender

Physical state solid Tablet

Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection. Keep out of the reach of children.

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. 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 locked up.

Precautionary Statements - Disposal

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

Other Hazards

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

Unknown Acute Toxicity

23% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

| Chemical name | CAS No | Weight-% |
|-------------------------------|-------------|----------|
| Aromatic carboxylic acid salt | Proprietary | 5 |
| Sodium carbonate* | 497-19-8 | 10-20 |
| Boric acid | 10043-35-3 | 15 |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Ingredients not specifically listed by name are proprietary to the LaMotte Company, registered under the State of New Jersey Trade Secret protection law, assigned the NJTSRN#80100291-5105p, and may be disclosed only in a medical emergency

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

| | |
|--|--|
| General advice | Do not get in eyes, on skin, or on clothing. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician. |
| Inhalation | Remove to fresh air. Not expected to require first aid measures. |
| Ingestion | Drink plenty of water. Clean mouth with water. Consult a physician. If gastrointestinal distress occurs contact physician. |
| <u>Self-protection of the first aider</u> | Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |

5. FIREFIGHTING MEASURES**Suitable extinguishing media**

Water spray, dry chemical, carbon dioxide (CO₂), 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. Avoid contact with the skin and the eyes.

Environmental precautions See Section 12 for additional Ecological Information.

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. Dispose according to local regulations, if permitted dissolve in water and rinse to drain.

Methods for cleaning up Keep in suitable and closed 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 out of the reach of children. Keep away from direct sunlight.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------------------|---|----------|-----------------|
| Aromatic carboxylic acid salt | - | - | Not Established |
| Sodium carbonate* 497-19-8 | - | - | Not Established |
| Boric acid 10043-35-3 | STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction | - | Not Established |

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems. 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 Wear latex or nitrile gloves.

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 and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|--------------|-------------|----------|
| Physical state | solid Tablet | Odor | Odorless |
| Appearance | Lavender | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--------------------------------|--------------------------|-----------------------------|
| pH | 9.0-9.5 | (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 | | |
| 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 | Hazardous polymerization does not occur. |
| Hazardous polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products | None under normal use. |

11. TOXICOLOGICAL INFORMATION

Product Information May be harmful if swallowed

Information on likely routes of exposure**Component identification**

| Chemical name | ATEmix (oral) | ATEmix (dermal) | Inhalation LC50 |
|-------------------------------|----------------------|-------------------------|--------------------------------------|
| Aromatic carboxylic acid salt | = 4070 mg/kg (Rat) | Not Established | Not Established |
| Sodium carbonate* 497-19-8 | = 4090 mg/kg (Rat) | Not Established | = 2300 mg/m ³ (Rat) 2 h |
| Boric acid 10043-35-3 | = 2660 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 0.16 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 |
|----------------------|--------------|-------------|------------|-------------|
| | | | | |

| | | | | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| Aromatic carboxylic acid salt | Not Established | Not Established | Not Established | Not Established |
| Sodium carbonate* 497-19-8 | Not Established | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | Group 2A | Not Established | Not Established |

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

| | |
|-------------------------------|--|
| Reproductive toxicity | Product is or contains a chemical which is a known or suspected reproductive hazard. Contains a known or suspected reproductive toxin. |
| Developmental toxicity | No information available. |
| Teratogenic | May cause harm to the unborn child. |
| Chronic toxicity | None known. |
| Target organ effects | No information available. |
| ATEmix (oral) | 3,349.00 mg/kg |
| ATEmix (dermal) | 10,267.00 mg/kg |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical name | Toxicity to Algae | Toxicity to Fish | Daphnia Magna (Water Flea) |
|-------------------------------|--------------------------------|--|---|
| Aromatic carboxylic acid salt | Not Established | 420 - 558: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static | 650: 48 h Daphnia magna mg/L EC50 |
| Sodium carbonate* 497-19-8 | 242: 120 h Nitzschia mg/L EC50 | 310 - 1220: 96 h Pimephales promelas mg/L LC50 static 300: 96 h Lepomis macrochirus mg/L LC50 static | 265: 48 h Daphnia magna mg/L EC50 |
| Boric acid 10043-35-3 | Not Established | 1020: 72 h Carassius auratus mg/L LC50 flow-through | 115 - 153: 48 h Daphnia magna mg/L EC50 |

Persistence and degradability

No data is available on the product itself.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|-------------------------------|-----------------|
| Aromatic carboxylic acid salt | -2.13 |
| Sodium carbonate* 497-19-8 | Not Established |
| Boric acid 10043-35-3 | -0.757 |

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of waste product or used containers according to local regulations. Can be incinerated, when in compliance with local regulations. Should not be released into the environment.

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 |
|-------------------------------|-----------------|--------------------------|------------------------|------------------------|
| Aromatic carboxylic acid salt | Not Established | - | Not Established | Not Established |
| Sodium carbonate* 497-19-8 | Not Established | - | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | - | Not Established | Not Established |

| Chemical name | RCRA - Halogenated | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---------------|--------------------|------------------------|------------------------|------------------------|
|---------------|--------------------|------------------------|------------------------|------------------------|

| | Organic Compounds | | | |
|-------------------------------|-------------------|-----------------|-----------------|-----------------|
| Aromatic carboxylic acid salt | Not Established | Not Established | Not Established | Not Established |
| Sodium carbonate* 497-19-8 | Not Established | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|-------------------------------|-----------------------------------|
| Aromatic carboxylic acid salt | - |
| Sodium carbonate* 497-19-8 | Corrosive |
| Boric acid 10043-35-3 | Toxic |

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/NDL | Does not comply |
| EINECS/ELINCS | Does not comply |
| ENCS | Does not comply |
| IECSC | Complies |
| KECL | Does not comply |
| PICCS | Does not comply |
| 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 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 % |
|-------------------------------|-------------------------------|
| Aromatic carboxylic acid salt | Not Established |
| Sodium carbonate* | Not Established |

| | |
|--------------------------|-----------------|
| 497-19-8 | |
| Boric acid 10043-35-3 | 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 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 |
|-------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Aromatic carboxylic acid salt | Not Established | Not Established | Not Established | Not Established |
| Sodium carbonate* 497-19-8 | Not Established | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | 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 |
|-------------------------------|--------------------------|-----------------|----|
| Aromatic carboxylic acid salt | - | Not Established | - |
| Sodium carbonate* 497-19-8 | - | Not Established | - |
| Boric acid 10043-35-3 | - | Not Established | - |

US State Regulations**California Proposition 65**

| Chemical name | California Proposition 65 |
|-------------------------------|---------------------------|
| Aromatic carboxylic acid salt | Not Established |
| Sodium carbonate* 497-19-8 | Not Established |
| Boric acid 10043-35-3 | Not Established |

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|-----------------|-----------------|-----------------|
| Aromatic carboxylic acid salt | Not Established | Not Established | Not Established |
| Sodium carbonate* 497-19-8 | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | X | Not Established | Not Established |

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**16. OTHER INFORMATION**

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



| | |
|---------------|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

Prepared by

Regulatory Affairs Department

Issuing Date

Aug-20-2015

Revision Date

Apr-21-2016

Reason for revision

(M)SDS sections updated 2 3 16

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** DPD #1 Tablet**Other means of identification****Product Code(s)** 6903A**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). Use as a laboratory reagent.**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**EMERGENCY OVERVIEW****Hazard statements**

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

Appearance White**Physical state** solid Tablet**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.

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. 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 Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS*

| Chemical name | CAS No | Weight-% |
|---------------|------------|----------|
| DPD Sulfate | 6283-63-2 | 1 |
| Boric acid | 10043-35-3 | 8 |

All ingredients may not be listed. Ingredients not listed do not meet the reporting requirements of the OSHA Hazard Communication Standard (HCS) as specified in 29 CFR 1910.1200.

Ingredients not specifically listed by name are proprietary to the LaMotte Company, registered under the State of New Jersey Trade Secret protection law, assigned the NJTSRN#80100291-5002p, and may be disclosed only in a medical emergency

4. FIRST AID MEASURES

First Aid Measures

| | |
|--|--|
| General advice | Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. |
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician. |
| Skin contact | Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. If symptoms persist, call a physician. |
| Inhalation | IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. |
| Ingestion | Drink plenty of water. Call a physician or poison control center immediately. |
| <u>Self-protection of the first aider</u> | Use personal protection recommended in Section 8. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

5. FIREFIGHTING MEASURES

Suitable extinguishing media

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|----------------------------------|---|
| Personal precautions | Use personal protection recommended in Section 8. |
| Environmental precautions | See Section 12 for additional Ecological Information. |

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for containment | Prevent dust cloud. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |
| Methods for cleaning up | Clean contaminated surface thoroughly. 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. 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. Keep out of the reach of children. Protect from light.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------------------|---|----------|-----------------|
| DPD Sulfate 6283-63-2 | - | - | Not Established |
| Boric acid 10043-35-3 | STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction | - | Not Established |

Appropriate engineering controls

Engineering Measures None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Goggles. Wear safety glasses with side shields (or goggles).

Skin and body protection Impervious clothing. Protective gloves. Nitrile rubber.

Respiratory protection No special protective equipment required.

Hygiene Measures Avoid contact with eyes, skin and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state solid Tablet
Appearance White
Odor Odorless

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|--------------------------|--------------------------------|
| 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 | | |
| 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 under recommended storage conditions.
Hazardous polymerization Hazardous polymerization does not occur.
Conditions to avoid Exposure to air or moisture over prolonged periods. Direct sunlight.
Incompatible materials None known based on information supplied.
Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Product Information May cause eye, skin, and respiratory tract irritation.

Information on likely routes of exposure**Component identification**

| Chemical name | ATEmix (oral) | ATEmix (dermal) | Inhalation LC50 |
|--------------------------|----------------------|-------------------------|-------------------------|
| DPD Sulfate 6283-63-2 | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | = 2660 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 0.16 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 |
|--------------------------|-----------------|-----------------|-----------------|-----------------|
| DPD Sulfate 6283-63-2 | Not Established | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | Group 2A | Not Established | Not Established |

Developmental toxicity No information available.
Teratogenic May cause harm to the unborn child.
Target organ effects No information available.

ATEmix (oral) 2,815.00 mg/kg
ATEmix (dermal) 18,893.00 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

| Chemical name | Toxicity to Algae | Toxicity to Fish | Daphnia Magna (Water Flea) |
|--------------------------|-------------------|--|--|
| DPD Sulfate 6283-63-2 | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | 1020: 72 h Carassius auratus mg/L LC50 flow-through | 115 - 153: 48 h Daphnia magna mg/L EC50 |

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|--------------------------|-----------------|
| DPD Sulfate 6283-63-2 | Not Established |
| Boric acid 10043-35-3 | -0.757 |

13. DISPOSAL CONSIDERATIONS

Disposal Methods Dispose of waste product or used containers according to local regulations. Should not be released into the environment.

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 |
|--------------------------|-----------------|--------------------------|------------------------|------------------------|
| DPD Sulfate 6283-63-2 | Not Established | - | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | - | Not Established | Not Established |

| Chemical name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|--------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| DPD Sulfate 6283-63-2 | Not Established | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|--------------------------|-----------------------------------|
| DPD Sulfate 6283-63-2 | - |
| Boric acid 10043-35-3 | Toxic |

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

ADR Not regulated

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 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 % |
|--------------------------|-------------------------------|
| DPD Sulfate 6283-63-2 | Not Established |
| Boric acid 10043-35-3 | 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 |
|--------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| DPD Sulfate 6283-63-2 | Not Established | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | 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 |
|--------------------------|--------------------------|-----------------|----|
| DPD Sulfate 6283-63-2 | - | Not Established | - |
| Boric acid 10043-35-3 | - | Not Established | - |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

| Chemical name | California Proposition 65 |
|--------------------------|---------------------------|
| DPD Sulfate 6283-63-2 | Not Established |
| Boric acid 10043-35-3 | Not Established |

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|--------------------------|-----------------|-----------------|-----------------|
| DPD Sulfate 6283-63-2 | Not Established | Not Established | Not Established |
| Boric acid 10043-35-3 | X | 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>HMIS</u> | Health hazard 1 | Flammability 0 | Stability 0 | |



| | |
|---------------|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

Prepared by Regulatory Affairs Department
Issuing Date Apr-01-2015
Revision Date Mar-15-2016
Revision note Boric acid classification differs between the US and EU. It is not classified in the US but it is in the EU.
Reason for revision (M)SDS sections updated 2 11 12 16

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** Copper TesTabs**Other means of identification****Product Code(s)** 3808A**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Laboratory chemicals. Industrial use. Industrial (not for food or food contact use).**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

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

2. HAZARDS IDENTIFICATION

Serious eye damage/eye irritation

Category 2A

EMERGENCY OVERVIEW**WARNING****Hazard statements**

Causes serious eye irritation.

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

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/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. 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.

Storage:

Store in a well-ventilated place. Keep cool.

Other Hazards

May be harmful in contact with skin. Harmful to aquatic life with long lasting effects.

Unknown Acute Toxicity

5% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

| Chemical name | CAS # | Weight-% |
|---------------------------|-------------|----------|
| Aliphatic carboxylic acid | Proprietary | 10-15 |
| Carbonate salt | Proprietary | 10-20 |

Ingredients not specifically listed by name are proprietary to the LaMotte Company, registered under the State of New Jersey Trade Secret protection law, assigned the NJTSRN#80100291-5002p, and may be disclosed only in a medical emergency. Excipients not listed by name are non-hazardous and proprietary to the manufacturer.

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

Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Take off

contaminated clothing and wash before reuse. Call a physician immediately.

Inhalation

Remove to fresh air. If symptoms persist, call a physician.

Ingestion

Drink plenty of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

Self-protection of the first aider

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.

Notes to Physician

Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

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

Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8.

Environmental precautions

No special environmental precautions required. See Section 12 for additional Ecological Information.

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

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

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. 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 sunlight. Keep away from heat. Protect from moisture. Keep out of the reach of children.

Incompatible Products

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------------------|--------------------------|----------|-----------------|
| Aliphatic carboxylic acid | TWA: 5 mg/m ³ | - | Not Established |

| | | | |
|----------------|---|---|-----------------|
| Carbonate salt | - | - | Not Established |
|----------------|---|---|-----------------|

Appropriate engineering controls

Engineering Measures None under normal use conditions. For home use.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Protective gloves. Rubber gloves. Nitrile rubber.

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 and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

| Property | Values | Remarks • Method |
|---------------------------------------|--------------------------|-----------------------------|
| 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 | | |
| 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 polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | None under normal use. |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|---------------------|------------------------------------|
| Inhalation | Not an expected route of exposure. |
| Eye contact | May cause irritation. |
| Skin contact | May cause irritation. |
| Ingestion | May be harmful if swallowed. |

Component identification

| Chemical name | ATEmix (oral) | ATEmix (dermal) | Inhalation LC50 |
|---------------------------|--|------------------------|--------------------------------------|
| Aliphatic carboxylic acid | > 11000 mg/kg (Rat) = 2210 mg/kg (Rat) | > 200 mg/kg (Rabbit) | > 31 mg/L (Rat) 1 h |
| Carbonate salt | = 4090 mg/kg (Rat) | Not Established | = 2300 mg/m ³ (Rat) 2 h |

Information on toxicological effects

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---------------------------|-----------------|-----------------|-----------------|-----------------|
| Aliphatic carboxylic acid | Not Established | Not Established | Not Established | Not Established |
| Carbonate salt | Not Established | Not Established | Not Established | Not Established |

Chronic toxicity None known.

| | |
|------------------------|----------------|
| ATEmix (oral) | 6,885.00 mg/kg |
| ATEmix (dermal) | 2,157.00 mg/kg |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Unknown Aquatic Toxicity 54.8 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical name | Toxicity to Algae | Toxicity to Fish | Daphnia Magna (Water Flea) |
|---------------------------|---|---|---|
| Aliphatic carboxylic acid | 26.6: 96 h Desmodesmus subspicatus mg/L EC50 31.3: 72 h Desmodesmus subspicatus mg/L EC50 35: 96 h Desmodesmus subspicatus mg/L EC50 66: 72 h Desmodesmus subspicatus mg/L EC50 | 150 - 220: 96 h Leuciscus idus mg/L LC50 static 230: 96 h Leuciscus idus mg/L LC50 static 97: 96 h Pimephales promelas mg/L LC50 static | 85.7: 48 h Daphnia magna mg/L EC50 88.4: 48 h Daphnia magna mg/L EC50 |
| Carbonate salt | 242: 120 h Nitzschia mg/L EC50 | 310 - 1220: 96 h Pimephales promelas mg/L LC50 static 300: 96 h Lepomis macrochirus mg/L LC50 static | 265: 48 h Daphnia magna mg/L EC50 |

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|---------------------------|----------------------|
| Aliphatic carboxylic acid | 0.081 -0.575 - 0.081 |
| Carbonate salt | 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 |
|---------------------------|-----------------|--------------------------|------------------------|------------------------|
| Aliphatic carboxylic acid | Not Established | - | Not Established | Not Established |
| Carbonate salt | Not Established | - | Not Established | Not Established |

| Chemical name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Aliphatic carboxylic acid | Not Established | Not Established | Not Established | Not Established |
| Carbonate salt | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|---------------------------|-----------------------------------|
| Aliphatic carboxylic acid | - |
| Carbonate salt | Corrosive |

14. TRANSPORT INFORMATION**DOT** Not regulated**IATA** Not regulated**IMDG/IMO** Not regulated**15. REGULATORY INFORMATION****International Inventories**

| | |
|----------------------|-----------------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Does not comply |
| IECSC | Complies |
| 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/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 % |
|---------------------------|-------------------------------|
| Aliphatic carboxylic acid | Not Established |
| Carbonate salt | 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)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Aliphatic carboxylic acid | 5000 lb | Not Established | Not Established | X |
| Carbonate salt | 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 |
|---------------------------|--------------------------|-----------------|--|
| Aliphatic carboxylic acid | 5000 lb | Not Established | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Carbonate salt | - | Not Established | - |

US State Regulations

This product does not contain any Proposition 65 chemicals.

| Chemical name | California Proposition 65 |
|---------------------------|---------------------------|
| Aliphatic carboxylic acid | Not Established |
| Carbonate salt | Not Established |

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------|-----------------|-----------------|-----------------|
| Aliphatic carboxylic acid | X | X | X |
| Carbonate salt | Not Established | Not Established | Not Established |

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**16. OTHER INFORMATION**

| | | | | |
|-------------|-----------------|----------------|---------------|-----------------------------------|
| NFPA | Health hazard 1 | Flammability 0 | Instability 0 | Physical and Chemical Hazards N/A |
| | Health hazard 1 | | | |



| | |
|---------------|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

Prepared by

Issuing Date

Disclaimer

Regulatory Affairs Department

Apr-02-2012

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 COPPER TABLETS

Other means of identification

Product Code(s) WL-3808

Recommended use of the chemical and restrictions on use

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

Details of the supplier of the safety data sheet

Manufacturer Address

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748


Emergency telephone number

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

2. HAZARDS IDENTIFICATION

| | |
|-----------------------------------|-------------|
| Serious eye damage/eye irritation | Category 2A |
|-----------------------------------|-------------|

EMERGENCY OVERVIEW

| | | |
|---|--|----------------------|
| WARNING | | |
| Hazard statements Causes serious eye irritation. | | |
|  | | |
| Appearance yellow | Physical state Tablet ~0.1g (100mg) | Odor Odorless |

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/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. 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 in contact with skin Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

5% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

| Chemical name | CAS No | Weight-% |
|---------------------------|-------------|----------|
| Aliphatic carboxylic acid | Proprietary | 10-15 |
| Carbonate salt | Proprietary | 10-20 |
| Potassium salt | Proprietary | 10-20 |

Ingredients not specifically listed by name are proprietary to the LaMotte Company, registered under the State of New Jersey Trade Secret protection law, assigned the NJTSRN#80100291-5002p, and may be disclosed only in a medical emergency
Excipients not listed by name are non-hazardous and proprietary to the manufacturer

4. FIRST AID MEASURES

First Aid Measures

| | |
|---|--|
| General advice | Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. Call a physician immediately. |
| Inhalation | Remove to fresh air. If symptoms persist, call a physician. |
| Ingestion | Drink plenty of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person. |
| Self-protection of the first aider | 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. |
| Notes to Physician | Treat symptomatically. |

5. FIREFIGHTING MEASURES

Suitable extinguishing media

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8.

Environmental precautions No special environmental precautions required. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

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. 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 sunlight. Keep away from heat. Protect from moisture. Keep out of the reach of children.

Incompatible Products Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------------------|--------------------------|----------|-----------------|
| Aliphatic carboxylic acid | TWA: 5 mg/m ³ | - | Not Established |
| Carbonate salt | - | - | Not Established |
| Potassium salt | - | - | Not Established |

Appropriate engineering controls

Engineering Measures None under normal use conditions. For home use.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Protective gloves. Rubber gloves. Nitrile rubber.

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 and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

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

| | | |
|--------------------------------|--------------------------|-----------------------------|
| 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 | | |
| 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 polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | None under normal use. |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|--------------|------------------------------------|
| Inhalation | Not an expected route of exposure. |
| Eye contact | May cause irritation. |
| Skin contact | May cause irritation. |
| Ingestion | May be harmful if swallowed. |

Component identification

| Chemical name | ATEmix (oral) | ATEmix (dermal) | Inhalation LC50 |
|---------------------------|--|------------------------|--------------------------------------|
| Aliphatic carboxylic acid | > 11000 mg/kg (Rat) = 2210 mg/kg (Rat) | > 200 mg/kg (Rabbit) | > 31 mg/L (Rat) 1 h |
| Carbonate salt | = 4090 mg/kg (Rat) | Not Established | = 2300 mg/m ³ (Rat) 2 h |
| Potassium salt | = 2600 mg/kg (Rat) | Not Established | Not Established |

Information on toxicological effects

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---------------------------|-----------------|-----------------|-----------------|-----------------|
| Aliphatic carboxylic acid | Not Established | Not Established | Not Established | Not Established |
| Carbonate salt | Not Established | Not Established | Not Established | Not Established |

| | | | | |
|----------------|-----------------|-----------------|-----------------|-----------------|
| Potassium salt | Not Established | Not Established | Not Established | Not Established |
|----------------|-----------------|-----------------|-----------------|-----------------|

Chronic toxicity None known.

ATEmix (oral) 6,885.00 mg/kg
ATEmix (dermal) 2,157.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical name | Toxicity to Algae | Toxicity to Fish | Daphnia Magna (Water Flea) |
|---------------------------|---|---|---|
| Aliphatic carboxylic acid | 26.6: 96 h Desmodesmus subspicatus mg/L EC50 31.3: 72 h Desmodesmus subspicatus mg/L EC50 35: 96 h Desmodesmus subspicatus mg/L EC50 66: 72 h Desmodesmus subspicatus mg/L EC50 | 150 - 220: 96 h Leuciscus idus mg/L LC50 static 230: 96 h Leuciscus idus mg/L LC50 static 97: 96 h Pimephales promelas mg/L LC50 static | 85.7: 48 h Daphnia magna mg/L EC50 88.4: 48 h Daphnia magna mg/L EC50 |
| Carbonate salt | 242: 120 h Nitzschia mg/L EC50 | 310 - 1220: 96 h Pimephales promelas mg/L LC50 static 300: 96 h Lepomis macrochirus mg/L LC50 static | 265: 48 h Daphnia magna mg/L EC50 |
| Potassium salt | 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 |

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|---------------------------|----------------------|
| Aliphatic carboxylic acid | 0.081 -0.575 - 0.081 |
| Carbonate salt | Not Established |
| Potassium salt | 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 |
|---------------------------|-----------------|--------------------------|------------------------|------------------------|
| Aliphatic carboxylic acid | Not Established | - | Not Established | Not Established |
| Carbonate salt | Not Established | - | Not Established | Not Established |
| Potassium salt | Not Established | - | Not Established | Not Established |

| Chemical name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Aliphatic carboxylic acid | Not Established | Not Established | Not Established | Not Established |
| Carbonate salt | Not Established | Not Established | Not Established | Not Established |
| Potassium salt | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|---------------------------|-----------------------------------|
| Aliphatic carboxylic acid | - |
| Carbonate salt | Corrosive |
| Potassium salt | - |

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

| | |
|---------------|-----------------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Does not comply |
| IECSC | Complies |
| 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/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 % |
|---------------------------|-------------------------------|
| Aliphatic carboxylic acid | Not Established |
| Carbonate salt | Not Established |
| Potassium salt | 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)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Aliphatic carboxylic acid | 5000 lb | Not Established | Not Established | X |
| Carbonate salt | Not Established | Not Established | Not Established | Not Established |
| Potassium salt | 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 |
|---------------------------|--------------------------|-----------------|--|
| Aliphatic carboxylic acid | 5000 lb | Not Established | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Carbonate salt | - | Not Established | - |
| Potassium salt | - | Not Established | - |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

| Chemical name | California Proposition 65 |
|---------------------------|---------------------------|
| Aliphatic carboxylic acid | Not Established |
| Carbonate salt | Not Established |
| Potassium salt | Not Established |

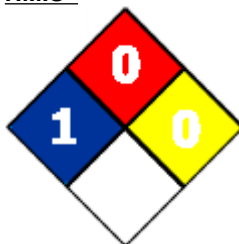
U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------|-----------------|-----------------|-----------------|
| Aliphatic carboxylic acid | X | X | X |
| Carbonate salt | Not Established | Not Established | Not Established |
| Potassium salt | Not Established | Not Established | Not Established |

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

16. OTHER INFORMATION

| | | | | |
|-------------|-----------------|----------------|---------------|--|
| NFPA | Health hazard 1 | Flammability 0 | Instability 0 | Physical and Chemical Hazards N/A |
| HMIS | Health hazard 1 | Flammability 0 | Stability 0 | |



| | |
|---------------|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

Prepared by
Issuing Date
Revision Date
Disclaimer

Regulatory Affairs Department
Apr-02-2012
Feb-23-2016

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

Trade Secret protection law, assigned the NJTSRN#80100291-5104p, and may be disclosed only in a medical emergency

4. FIRST AID MEASURES

First Aid Measures

| | |
|--|--|
| General advice | Do not get in eyes, on skin, or on clothing. |
| Eye contact | Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician. |
| Skin contact | Wash off immediately with soap and plenty of water. If symptoms persist, call a physician. |
| Inhalation | Remove to fresh air. If symptoms persist, call a physician. |
| Ingestion | Drink plenty of water. If gastrointestinal distress occurs contact physician. |
| <u>Self-protection of the first aider</u> | Use personal protection recommended in Section 8. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|----------------------------------|---|
| Personal precautions | Use personal protection recommended in Section 8. |
| Environmental precautions | See Section 12 for additional Ecological Information. |

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for containment | Dispose of contents/containers in accordance with local regulations. |
| 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. Do not taste or swallow. Avoid contact with skin and eyes. 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. |
| Incompatible Products | No materials to be especially mentioned. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------------------|-----------|----------|-----------------|
| Sodium bisulfate 7681-38-1 | - | - | Not Established |
| Polymer resin | - | - | Not Established |
| Excipient | - | - | Not Established |
| Chloride salt | - | - | 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 Incidental contact/splash 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. 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 Tablet
Appearance Tan **Odor** Odorless

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|--------------------------|-------------------------|
| pH | 3.5 | |
| 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 | 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 polymerization Hazardous polymerization does not occur.
Conditions to avoid Excessive heat. Moisture.
Incompatible materials No materials to be especially mentioned.
Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

Product Information Product does not present an acute toxicity hazard based on known or supplied information

Information on likely routes of exposure

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------------|----------------------|----------------------|-----------------------------------|
| Sodium bisulfate 7681-38-1 | = 2490 mg/kg (Rat) | Not Established | Not Established |
| Polymer resin | > 3200 mg/kg (Rat) | Not Established | Not Established |
| Excipient | > 10 g/kg (Rat) | Not Established | Not Established |
| Chloride salt | = 3 g/kg (Rat) | > 10 g/kg (Rabbit) | > 42 g/m ³ (Rat) 1 h |

Information on toxicological effects

| Chemical name | ACGIH | IARC | NTP | OSHA |
|-------------------------------|-------|-----------------|-----------------|------|
| Sodium bisulfate 7681-38-1 | - | Not Established | Not Established | - |
| Polymer resin | - | Not Established | Not Established | - |
| Excipient | - | Not Established | Not Established | - |
| Chloride salt | - | Not Established | Not Established | - |

Chronic toxicity Product does not present a chronic toxicity hazard based on known or supplied information.

ATEmix (oral) 3479 mg/kg
ATEmix (dermal) 13477 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Unknown Aquatic Toxicity 24.933 % 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 bisulfate 7681-38-1 | Not Established | Not Established | 190: 48 h Daphnia magna mg/L EC50 |
| Polymer resin | Not Established | Not Established | Not Established |
| Excipient | Not Established | Not Established | Not Established |
| Chloride salt | Not Established | 4747 - 7824: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 5560 - 6080: 96 h Lepomis macrochirus mg/L LC50 flow-through 6020 - 7070: 96 h Pimephales promelas mg/L LC50 static 6420 - 6700: 96 h | 340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static 1000: 48 h Daphnia magna mg/L EC50 |

| | | | |
|--|--|--|--|
| | | Pimephales promelas mg/L LC50 static 12946: 96 h Lepomis macrochirus mg/L LC50 static 7050: 96 h Pimephales promelas mg/L LC50 semi-static | |
|--|--|--|--|

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|-------------------------------|-----------------|
| Sodium bisulfate 7681-38-1 | Not Established |
| Polymer resin | Not Established |
| Excipient | Not Established |
| Chloride salt | 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 |
|-------------------------------|-----------------|--------------------------|------------------------|------------------------|
| Sodium bisulfate 7681-38-1 | Not Established | - | Not Established | Not Established |
| Polymer resin | Not Established | - | Not Established | Not Established |
| Excipient | Not Established | - | Not Established | Not Established |
| Chloride salt | 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 bisulfate 7681-38-1 | Not Established | Not Established | Not Established | Not Established |
| Polymer resin | Not Established | Not Established | Not Established | Not Established |
| Excipient | Not Established | Not Established | Not Established | Not Established |
| Chloride salt | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|-------------------------------|-----------------------------------|
| Sodium bisulfate 7681-38-1 | - |
| Polymer resin | - |
| Excipient | - |
| Chloride salt | - |

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/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 bisulfate 7681-38-1 | Not Established |
| Polymer resin | Not Established |
| Excipient | Not Established |
| Chloride salt | 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 |
|-------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium bisulfate 7681-38-1 | Not Established | Not Established | Not Established | Not Established |
| Polymer resin | Not Established | Not Established | Not Established | Not Established |
| Excipient | Not Established | Not Established | Not Established | Not Established |

| | | | | |
|---------------|-----------------|-----------------|-----------------|-----------------|
| Chloride salt | 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 |
|-------------------------------|--------------------------|-----------------|----|
| Sodium bisulfate 7681-38-1 | - | Not Established | - |
| Polymer resin | - | Not Established | - |
| Excipient | - | Not Established | - |
| Chloride salt | - | Not Established | - |

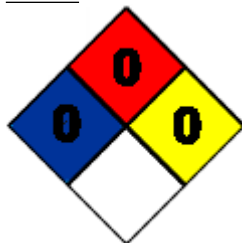
US State Regulations**U.S. State Right-to-Know Regulations**

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|-----------------|-----------------|-----------------|
| Sodium bisulfate 7681-38-1 | Not Established | Not Established | Not Established |
| Polymer resin | Not Established | Not Established | Not Established |
| Excipient | Not Established | Not Established | Not Established |
| Chloride salt | Not Established | Not Established | Not Established |

16. OTHER INFORMATION

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

HMIS Health hazard 1 Flammability 0 Stability 0



| | |
|---------------|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

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Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Material Safety Data Sheet