



Issuing Date Apr-14-2015

Revision Date -

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Calcium Hardness Tablet

Product Code(s) 6846A

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

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

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

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
May cause skin and eye irritation
May be harmful if swallowed
Large oral doses may cause gastrointestinal irritation and circulatory problems

Appearance light pink, with white specks **Physical state** Tablet, ~0.1g (100mg) **Odor** Odorless

OSHA Regulatory Status While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Potential health effects
Principle Routes of Exposure Skin and eye contact.

Acute toxicity
Eyes May cause irritation.
Skin May cause irritation.
Inhalation Not an expected route of exposure.
Ingestion May be harmful if swallowed. May cause gastrointestinal discomfort if consumed in large amounts.

Chronic effects None known.
Aggravated Medical Conditions None known.

Interactions with Other Chemicals None known.

Environmental hazard No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% |
|---|-----------|----------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | <0.5 |
| Carboxymethylcellulose | - | 1-5 |
| Polyamino Carboxylic acid | - | 1-10 |
| Lithium hydroxide | 1310-65-2 | 10 |
| Carbonate salt | - | 10-15 |
| Potassium salt | - | 35-45 |

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

| | |
|---|--|
| General advice | Do not get in eyes, on skin, or on clothing. |
| Eye contact | Immediately flush eyes with gentle stream of water for at least 15 minutes, occasionally lifting upper and lower eyelids. If irritation persists or develops, contact a physician. |
| Skin contact | Wash off with warm water and soap. If irritation develops or persists, consult physician. |
| Inhalation | Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. |
| Ingestion | Drink plenty of water. Clean mouth with water. If gastrointestinal distress occurs contact physician. Consult a physician. Rinse mouth. |
| Self-protection of the first aider | Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |

5. FIRE-FIGHTING MEASURES

| | | | | |
|-------------------------------------|--|----------------|-------------|-----------------------------------|
| Flammable properties | Not a fire hazard. | | | |
| Flash point | Not Applicable | | | |
| Suitable extinguishing media | Water spray, dry chemical, carbon dioxide (CO ₂), or foam. | | | |
| NFPA | Health hazard 1 | Flammability 0 | Stability 0 | Physical and Chemical Hazards N/A |
| HMIS | Health hazard 1 | Flammability 0 | Stability 0 | |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------------|---|
| Personal precautions | See section 8. Avoid contact with the skin and the eyes. |
| Methods for containment | Sweep up in a manner that does not disperse dust and shovel into suitable containers for disposal. |
| Methods for cleaning up | Containerize spill material and hold for later disposal. If local regulations permit, dissolve with large volume of water, neutralize with dilute acid (acetic, hydrochloric), then rinse to drain with excess water. After cleaning, flush away traces with water. |

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Chemical name | CAS No | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|-----------|------------|------------|------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known |
| Carbonate salt | - | None known | None known | None known |
| Potassium salt | - | None known | None known | None known |

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

Personal protective equipment

| | |
|---------------------------------|---|
| Eye/Face Protection | Wear safety glasses with side shields (or goggles). |
| 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. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--------------------------------------|------------------------------|---------------------------------|--------------------------|
| Appearance | light pink with white specks | Odor | Odorless |
| Physical state | Tablet, ~0.1g (100mg) | pH | 12 (0.1g/10mL water) |
| Flash point | Not Applicable | Autoignition temperature | Not Applicable |
| Boiling point / boiling range | No information available | Freezing Point | No information available |
| Explosion Limits | | Water solubility | Soluble in water |
| Molecular weight | No data available | | |

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity

| | |
|------------------|------------------|
| Oral LD50 | Oral LD50 |
|------------------|------------------|

| Dermal LD50 | | Dermal LD50 No information available | | |
|---|-----------|---|-------------|--------------------------------------|
| Chemical name | CAS No | Oral LD50 | Dermal LD50 | Inhalation LC50 |
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known |
| Polyamino Carboxylic acid | - | = 2 g/kg (Rat) | None known | None known |
| Lithium hydroxide | 1310-65-2 | = 120 mg/kg (Rat) = 210 mg/kg (Rat) | None known | = 960 mg/m ³ (Rat) 4 h |
| Carbonate salt | - | = 4090 mg/kg (Rat) | None known | = 2300 mg/m ³ (Rat) 2 h |
| Potassium salt | - | = 2600 mg/kg (Rat) | None known | None known |

Chronic toxicity None known

Carcinogenicity

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|---|-----------|------------|------------|------------|------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known | None known |
| Carbonate salt | - | None known | None known | None known | None known |
| Potassium salt | - | None known | None known | None known | None known |

Endocrine Disruptor Information .? is a suspected endocrine disruptor.

| Chemical name | CAS No | EU - Endocrine Disrupters Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine disrupting potential |
|---|-----------|--|--|--|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known |
| Carbonate salt | - | None known | None known | None known |
| Potassium salt | - | None known | None known | None known |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical name | CAS No | Toxicity to Algae | Toxicity to Fish | Microtox | Daphnia Magna (Water Flea) |
|---|-----------|--|---|--------------------|---|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | 320: 96 h Poecilia reticulata mg/L LC50 semi-static | EC50 = 56 mg/L 8 h | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known | None known |
| 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 | None known | 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 | None known | 825: 48 h Daphnia magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static |

Persistence and degradability No information available.

| Chemical name | CAS No | Log Pow |
|---|-----------|------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known |
| Carboxymethylcellulose | - | None known |
| Polyamino Carboxylic acid | - | None known |
| Lithium hydroxide | 1310-65-2 | None known |
| Carbonate salt | - | None known |
| Potassium salt | - | None known |

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 | CAS No | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---|-----------|--------------------------------------|------------------------|------------------------|------------------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known | None known |
| Carbonate salt | - | None known | None known | None known | None known |
| Potassium salt | - | None known | None known | None known | None known |

| Chemical name | California Hazardous Waste Status |
|--|-----------------------------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt 3051-09-0 | - |
| Carboxymethylcellulose | - |

| | |
|--------------------------------|---|
| Polyamino Carboxylic acid | - |
| Lithium hydroxide 1310-65-2 | - |
| Carbonate salt | - |
| Potassium salt | - |

14. TRANSPORT INFORMATION

DOT

| | |
|-----------------------------|--|
| Proper shipping name | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (<10% Lithium Hydroxide mixture) |
| Hazard Class | 8 |
| UN-No | 3262 |
| Packing group | III |

IATA

| | |
|-----------------------------|--|
| UN-No | 3262 |
| Proper shipping name | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (<10% Lithium Hydroxide mixture) |
| Hazard Class | 8 |
| Packing group | III |

IMDG/IMO

| | |
|-----------------------------|--|
| Proper shipping name | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (<10% Lithium Hydroxide mixture) |
| Hazard Class | 8 |
| UN-No | 3262 |
| Packing group | III |

15. REGULATORY INFORMATION

International Inventories

| Chemical name | CAS No | TSCA | DSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---|-----------|---------|-----|---------------|---------|-------|----------|-------|------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | Present | X | X | ENCS | X | KECL | X | X |
| Carboxymethylcellulose | - | TSCA | DSL | EINECS/ELINCS | ENCS | X | KECL | X | X |
| Polyamino Carboxylic acid | - | Present | X | X | Present | X | KE-13651 | X | X |
| Lithium hydroxide | 1310-65-2 | Present | X | X | Present | X | KE-22570 | X | X |
| Carbonate salt | - | Present | X | X | Present | X | KE-31380 | X | X |
| Potassium salt | - | Present | X | X | Present | X | KE-29086 | X | X |

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 | CAS No | Weight-% | SARA 313 - Threshold Values % |
|---|-----------|----------|-------------------------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | <0.5 | None known |
| Carboxymethylcellulose | - | 1-5 | None known |
| Polyamino Carboxylic acid | - | 1-10 | None known |
| Lithium hydroxide | 1310-65-2 | 10 | None known |
| Carbonate salt | - | 10-15 | None known |
| Potassium salt | - | 35-45 | None known |

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 | CAS No | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|-----------|-----------------------------|------------------------|---------------------------|----------------------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known | None known |
| Carbonate salt | - | None known | None known | None known | None known |
| Potassium salt | - | None known | None known | None known | None known |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

| Chemical name | CAS No | Weight-% | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|-----------|----------|------------|---------------|-------------------------|-------------------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | <0.5 | None known | None known | None known | None known |
| Carboxymethylcellulose | - | 1-5 | None known | None known | None known | None known |
| Polyamino Carboxylic acid | - | 1-10 | None known | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | 10 | None known | None known | None known | None known |
| Carbonate salt | - | 10-15 | None known | None known | None known | None known |
| Potassium salt | - | 35-45 | None known | None known | None known | None known |

CERCLA

| Chemical name | CAS No | Hazardous Substances RQs | CERCLA/SARA RQ |
|---|-----------|--------------------------|----------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known |
| Carboxymethylcellulose | - | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known |
| Carbonate salt | - | None known | None known |
| Potassium salt | - | None known | None known |

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

| Chemical name | CAS No | California Proposition 65 |
|---|-----------|---------------------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known |
| Carboxymethylcellulose | - | None known |
| Polyamino Carboxylic acid | - | None known |
| Lithium hydroxide | 1310-65-2 | None known |
| Carbonate salt | - | None known |
| Potassium salt | - | None known |

U.S. State Right-to-Know Regulations

| Chemical name | CAS No | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|-----------|---------------|------------|--------------|------------|--------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known | None known | None known | None known |
| Carboxymethylcellulose | - | None known | None known | None known | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known | None known | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known | None known | None known | None known |
| Carbonate salt | - | None known | None known | None known | None known | None known |
| Potassium salt | - | None known | None known | None known | None known | None known |

International Regulations**Mexico - Grade**

| Chemical name | CAS No | Carcinogen Status | Exposure Limits |
|---|-----------|-------------------|-----------------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | None known | None known |
| Carboxymethylcellulose | - | None known | None known |
| Polyamino Carboxylic acid | - | None known | None known |
| Lithium hydroxide | 1310-65-2 | None known | None known |
| Carbonate salt | - | None known | None known |
| Potassium salt | - | None known | None known |

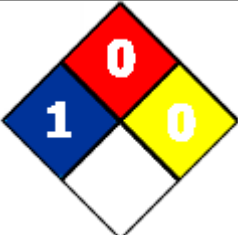

Canada

| Component | CAS No | WHMIS Hazard Class |
|---|-----------|---|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt 3051-09-0 (<0.5) | 3051-09-0 | Not Determined |
| Carboxymethylcellulose (1-5) | - | Not Determined |
| Polyamino Carboxylic acid (1-10) | - | Uncontrolled product according to WHMIS classification criteria |
| Lithium hydroxide 1310-65-2 (10) | 1310-65-2 | 1 % E |
| Carbonate salt (10-15) | - | 1 % D2B,E |
| Potassium salt (35-45) | - | Uncontrolled product according to WHMIS classification criteria |



| Chemical name | CAS No | NPRI |
|---|-----------|------|
| 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)imino]-, monoammonium salt | 3051-09-0 | |
| Carboxymethylcellulose | - | |
| Polyamino Carboxylic acid | - | |
| Lithium hydroxide | 1310-65-2 | |
| Carbonate salt | - | |
| Potassium salt | - | |

16. OTHER INFORMATION

| NFPA | HMIS | PPE | Transport Symbol | | | | | | |
|---|---|---------------|------------------|-------------|---|------------|---|--|--|
|  | <table border="1"> <tr> <td data-bbox="508 191 716 237">Health Hazard</td> <td data-bbox="724 191 792 237">1</td> </tr> <tr> <td data-bbox="508 237 716 283">Fire Hazard</td> <td data-bbox="724 237 792 283">0</td> </tr> <tr> <td data-bbox="508 283 716 329">Reactivity</td> <td data-bbox="724 283 792 329">0</td> </tr> </table> | Health Hazard | 1 | Fire Hazard | 0 | Reactivity | 0 |  | |
| Health Hazard | 1 | | | | | | | | |
| Fire Hazard | 0 | | | | | | | | |
| Reactivity | 0 | | | | | | | | |

Prepared by
 Issuing Date
 Revision Date
 Revision note

Regulatory Affairs Department
 Apr-14-2015
 -
 MSDS was reviewed per Canada request - Canada requires MSDS to be dated within 3 years of the request.

Disclaimer

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

End of Material Safety Data Sheet