



MATERIAL SAFETY DATA SHEET

Issuing Date Apr-11-2012

Revision Date May-11-2015

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Total Alkalinity Reagent

Product Code(s) 7038

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

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

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

2. HAZARDS IDENTIFICATION

WARNING

EMERGENCY OVERVIEW

May be harmful if swallowed
May be irritating to eyes, respiratory system, and skin

Appearance dark amber

Physical state liquid

Odor Odorless

Potential health effects

Principle Routes of Exposure Eye Contact, Skin Contact, and, Ingestion.

Acute toxicity

Eyes

May cause irritation.

Skin

May cause irritation.

Inhalation

Not an expected route of exposure. May cause irritation.

Ingestion

May be harmful if swallowed. May cause irritation.

Chronic effects

No information available.

Aggravated Medical Conditions

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% |
|-------------------|-----------|----------|
| Indicator | - | <0.1 |
| Polyvinyl polymer | - | <0.5 |
| Hydrochloric acid | 7647-01-0 | <0.2 |
| Phenol | 108-95-2 | 0.2 |
| Buffering agent | - | 1-5 |
| Water | 7732-18-5 | to 100% |

4. FIRST AID MEASURES

General advice Do not get in eyes, on skin, or on clothing.

| | |
|---|--|
| Eye contact | Rinse 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. Wash skin with soap and water. Consult a physician. |
| Inhalation | Remove to fresh air. If breathing is difficult, give oxygen. Call a physician immediately. |
| Ingestion | Do NOT induce vomiting. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person. |
| 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 - |
| HMIS | Health hazard 1 | Flammability 0 | Stability 0 | |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------------|---|
| Personal precautions | See section 8. Use personal protective equipment. Avoid contact with skin, eyes, and inhalation of vapors. |
| Methods for containment | Absorb/Cover spill with sodium bicarbonate or sodium carbonate to neutralize, then place in a chemical waste container for later 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. |

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 oxidizing agents. Keep away from direct sunlight. Keep out of the reach of children. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

| Chemical name | CAS No | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------|-----------|----------------|---|---|
| Indicator | - | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | Ceiling: 2 ppm | Ceiling 5 ppm (7mg/m ³) | IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³ |
| Phenol | 108-95-2 | TWA: 5 ppm | TWA: 5 ppm TWA: 19 mg/m ³ | IDLH: 250 ppm Ceiling: 15.6 ppm Ceiling: 60 mg/m ³ |

| | | | | |
|-----------------|-----------|------------|------------|---|
| | | | | TWA: 5 ppm TWA: 19 mg/m ³ |
| Buffering agent | - | None known | None known | None known |
| Water | 7732-18-5 | None known | None known | None known |

Engineering Measures

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment**Eye/Face Protection**

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear protective gloves/clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-----------------------|-----------------|--------------------------------------|----------------|
| Appearance | dark amber | Odor | Odorless |
| Physical state | liquid | pH | 2.0 - 3.5 |
| Flash point | Not Applicable | Boiling point / boiling range | ca 100°C/212°F |
| Vapor pressure | <17 mmHg @ 20°C | Vapor density | <1(Air = 1) |

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.

Incompatible Products Strong oxidizing agents. Nitric acid.

Conditions to avoid Excessive heat. Direct sunlight. Incompatible products.

Hazardous decomposition products Hazardous decomposition products formed under fire conditions -. Carbon oxides (COx).

Hazardous polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity**Oral LD50****Dermal LD50****Oral LD50****Dermal LD50 No information available**

| Chemical name | CAS No | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------|-----------|---|-------------------------|-------------------------------------|
| Indicator | - | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | 238 - 277 mg/kg (Rat) | > 5010 mg/kg (Rabbit) | = 1.68 mg/L (Rat) 1 h |
| Phenol | 108-95-2 | = 317 mg/kg (Rat) = 340 mg/kg (Rat) | = 630 mg/kg (Rabbit) | = 316 mg/m ³ (Rat) 4 h |
| Buffering agent | - | > 3200 mg/kg (Rat) | None known | None known |
| Water | 7732-18-5 | > 90 mL/kg (Rat) | None known | None known |

Chronic toxicity

No information available

Carcinogenicity

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|-------------------|-----------|------------|------------|------------|------------|
| Indicator | - | None known | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | None known | Group 3 | None known | None known |
| Phenol | 108-95-2 | None known | Group 3 | None known | None known |
| Buffering agent | - | None known | None known | None known | None known |

| | | | | | |
|-------|-----------|------------|------------|------------|------------|
| Water | 7732-18-5 | None known | None known | None known | None known |
|-------|-----------|------------|------------|------------|------------|

Endocrine Disruptor Information

| Chemical name | CAS No | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine disrupting potential |
|-------------------|-----------|--|--|--|
| Indicator | - | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | None known | None known | None known |
| Phenol | 108-95-2 | None known | None known | None known |
| Buffering agent | - | None known | None known | None known |
| Water | 7732-18-5 | 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) |
|-------------------|-----------|--|---|--|--|
| Indicator | - | None known | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | None known | 282: 96 h <i>Gambusia affinis</i> mg/L LC50 static | None known | None known |
| Phenol | 108-95-2 | 0.0188 - 0.1044: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static 187 - 279: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 static 46.42: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 | 11.9 - 25.3: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 11.9 - 50.5: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 20.5 - 25.6: 96 h <i>Pimephales promelas</i> mg/L LC50 static 23.4 - 36.6: 96 h <i>Oryzias latipes</i> mg/L LC50 static 33.9 - 43.3: 96 h <i>Oryzias latipes</i> mg/L LC50 flow-through 34.09 - 47.64: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 4.23 - 7.49: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 5.0 - 12.0: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 5.449 - 6.789: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 7.5 - 14: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 0.00175: 96 h <i>Cyprinus carpio</i> mg/L LC50 semi-static 11.5: 96 h <i>Lepomis macrochirus</i> mg/L LC50 semi-static 13.5: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 27.8: 96 h <i>Brachydanio rerio</i> mg/L LC50 31: 96 h <i>Poecilia reticulata</i> mg/L LC50 semi-static 32: 96 h <i>Pimephales promelas</i> mg/L LC50 | EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min | 10.2 - 15.5: 48 h <i>Daphnia magna</i> mg/L EC50 4.24 - 10.7: 48 h <i>Daphnia magna</i> mg/L EC50 Static |
| Buffering agent | - | None known | None known | None known | None known |
| Water | 7732-18-5 | None known | None known | None known | None known |

| Chemical name | CAS No | Log Pow |
|-------------------|-----------|------------|
| Indicator | - | None known |
| Polyvinyl polymer | - | None known |
| Hydrochloric acid | 7647-01-0 | None known |
| Phenol | 108-95-2 | 1.47 |
| Buffering agent | - | None known |
| Water | 7732-18-5 | None known |

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

| Chemical name | CAS No | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|-------------------|-----------|--------------------------------------|------------------------|------------------------|------------------------|
| Indicator | - | None known | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | None known | None known | None known | None known |
| Phenol | 108-95-2 | None known | None known | None known | None known |
| Buffering agent | - | None known | None known | None known | None known |
| Water | 7732-18-5 | None known | None known | None known | None known |

| Chemical name | California Hazardous Waste Status |
|--------------------------------|-----------------------------------|
| Indicator | - |
| Polyvinyl polymer | - |
| Hydrochloric acid 7647-01-0 | - |
| Phenol 108-95-2 | - |
| Buffering agent | - |
| Water 7732-18-5 | - |

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

| Chemical name | CAS No | TSCA | DSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|-------------------|-----------|---------|-----|---------------|---------|-------|----------|-------|------|
| Indicator | - | Present | X | X | ENCS | X | KECL | X | AICS |
| Polyvinyl polymer | - | Present | DSL | EINECS/ELINCS | ENCS | X | KECL | PICCS | AICS |
| Hydrochloric acid | 7647-01-0 | Present | X | X | Present | X | KE-20189 | X | X |
| Phenol | 108-95-2 | Present | X | X | Present | X | KE-28209 | X | X |
| Buffering agent | - | Present | X | X | Present | X | KE-02310 | X | X |
| Water | 7732-18-5 | Present | X | X | ENCS | X | KE-35400 | X | X |

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|-------------------|-----------|----------|-------------------------------|
| Indicator | - | <0.1 | None known |
| Polyvinyl polymer | - | <0.5 | None known |
| Hydrochloric acid | 7647-01-0 | <0.2 | 1.0 |
| Phenol | 108-95-2 | 0.2 | 1.0 |
| Buffering agent | - | 1-5 | None known |
| Water | 7732-18-5 | to 100% | 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 contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Chemical name | CAS No | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------|-----------|-----------------------------|------------------------|---------------------------|----------------------------|
| Indicator | - | None known | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | 5000 lb | None known | None known | X |
| Phenol | 108-95-2 | 1000 lb | X | X | X |
| Buffering agent | - | None known | None known | None known | None known |
| Water | 7732-18-5 | None known | None known | None known | None known |

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

This product contains the following HAPs:

| Chemical name | CAS No | Weight-% | HAPS data | VOC Chemicals | Class 1 Ozone Depleters | Class 2 Ozone Depleters |
|-------------------|-----------|----------|------------|---------------|-------------------------|-------------------------|
| Indicator | - | <0.1 | None known | None known | None known | None known |
| Polyvinyl polymer | - | <0.5 | None known | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | <0.2 | Present | None known | None known | None known |
| Phenol | 108-95-2 | 0.2 | Present | Group III | None known | None known |
| Buffering agent | - | 1-5 | None known | None known | None known | None known |
| Water | 7732-18-5 | to 100% | None known | None known | None known | None known |

CERCLA

| Chemical name | CAS No | Hazardous Substances RQs | CERCLA/SARA RQ |
|-------------------|-----------|--------------------------|----------------|
| Indicator | - | None known | None known |
| Polyvinyl polymer | - | None known | None known |
| Hydrochloric acid | 7647-01-0 | 5000 lb | 5000 lb |
| Phenol | 108-95-2 | 1000 lb | 1000 lb |
| Buffering agent | - | None known | None known |
| Water | 7732-18-5 | 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 |
|-------------------|-----------|---------------------------|
| Indicator | - | None known |
| Polyvinyl polymer | - | None known |
| Hydrochloric acid | 7647-01-0 | None known |
| Phenol | 108-95-2 | None known |
| Buffering agent | - | None known |
| Water | 7732-18-5 | None known |

U.S. State Right-to-Know Regulations

| Chemical name | CAS No | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|-----------|---------------|------------|--------------|------------|--------------|
| Indicator | - | None known | None known | None known | None known | None known |
| Polyvinyl polymer | - | None known | None known | None known | None known | None known |
| Hydrochloric acid | 7647-01-0 | X | X | X | X | X |
| Phenol | 108-95-2 | X | X | X | X | X |
| Buffering agent | - | None known | None known | None known | None known | None known |
| Water | 7732-18-5 | None known | None known | X | None known | None known |

International Regulations**Mexico - Grade**

| Chemical name | CAS No | Carcinogen Status | Exposure Limits |
|---------------|--------|-------------------|-----------------|
| Indicator | - | None known | None known |

| | | | |
|-------------------|-----------|------------|---|
| Polyvinyl polymer | - | None known | None known |
| Hydrochloric acid | 7647-01-0 | None known | None known |
| Phenol | 108-95-2 | None known | Mexico: TWA 5 ppm Mexico: TWA 19 mg/m ³ Mexico: STEL 10 ppm Mexico: STEL 38 mg/m ³ |
| Buffering agent | - | None known | None known |
| Water | 7732-18-5 | None known | None known |

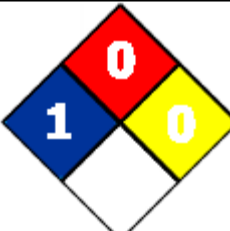

Canada

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

| Component | CAS No | WHMIS Hazard Class |
|---|-----------|---|
| Indicator (<0.1) | - | Uncontrolled product according to WHMIS classification criteria |
| Polyvinyl polymer (<0.5) | - | Not Determined |
| Hydrochloric acid 7647-01-0 (<0.2) | 7647-01-0 | 1 % A,D1A,E D1A,E E D1B,E |
| Phenol 108-95-2 (0.2) | 108-95-2 | 1 % D1A,E |
| Buffering agent (1-5) | - | Uncontrolled product according to WHMIS classification criteria |
| Water 7732-18-5 (to 100%) | 7732-18-5 | Uncontrolled product according to WHMIS classification criteria |

| Chemical name | CAS No | NPRI |
|-------------------|-----------|------|
| Indicator | - | |
| Polyvinyl polymer | - | |
| Hydrochloric acid | 7647-01-0 | |
| Phenol | 108-95-2 | X |
| Buffering agent | - | |
| Water | 7732-18-5 | |

16. OTHER INFORMATION

| NFPA | HMIS | PPE | Transport Symbol | | | | | | |
|---|---|---------------|------------------|-------------|---|------------|---|--|--|
|  | <table><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>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-11-2012

May-11-2015

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