

Issuing Date 10/19/2011

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name OZONE BUFFER

Product Code(s) 3991

Recommended Use Test kit reagent. Laboratory chemicals. 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

WARNING!

Emergency Overview

May be harmful if swallowed
May cause skin, eye, and respiratory tract irritation

Appearance Clear, colorless

Physical State Liquid

Odor None

OSHA Regulatory Status Safety information is given for exposure to the reagent as sold and considers exposure to the chemical if user has direct eye and skin contact.

Potential Health Effects

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

Acute Toxicity

Eyes Contact with eyes may cause severe irritation. May cause redness, itching, and pain.
Skin May cause irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation May cause irritation of respiratory tract.
Ingestion May be harmful if swallowed.

Chronic Effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % |
|---|------------|----------|
| Phosphoric acid | 7664-38-2 | <2 |
| Phosphoric acid, monosodium salt, monohydrate | 10049-21-5 | 1-5 |
| Water, distilled | 7732-18-5 | to 100% |

4. FIRST AID MEASURES

General Advice Do not get in eyes, on skin, or on clothing. Take off contaminated clothing and shoes immediately. Consult a physician.

| | |
|-----------------------------------|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice. |
| 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 | Move to fresh air. If breathing is difficult, give oxygen. Consult a physician. |
| Ingestion | Clean mouth with water and afterwards drink plenty of water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Consult a physician. |
| Notes to Physician | See MSDS (material safety data sheet) for additional information. |
| Protection of First-aiders | Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce 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. | | | |
| Explosion Data | | | | |
| 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 | Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. |
| 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 federal, state, and local regulations. |
| Methods for Cleaning Up | If local regulations permit, dissolve and rinse to drain with excess water. After cleaning, flush away traces with water. |
| Other Information | Ventilate the area. |

7. HANDLING AND STORAGE

| | |
|-----------------|--|
| Handling | Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. |
| Storage | Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat and incompatibles. Protect from sunlight. Keep out of the reach of children. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------|-----------|----------|------------|
|---------------|-----------|----------|------------|

| | | | |
|---|--|--------------------------|---|
| Phosphoric acid 7664-38-2 | = 3 mg/m ³ STEL TWA: 1 mg/m ³ | TWA: 1 mg/m ³ | IDLH: 1000 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³ |
| Phosphoric acid, monosodium salt, monohydrate 10049-21-5 | None Known | None Known | None Known |
| Water, distilled 7732-18-5 | None Known | None Known | None Known |

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/Face Protection

Safety glasses with side-shields. Maintain eye wash and quick drench shower facilities in work area.

Skin and Body Protection

Wear protective gloves/clothing. Neoprene and nitrile rubber are recommended materials.

Respiratory Protection

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

Hygiene Measures

Use only with adequate ventilation. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes and clothing. Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------------|------------------|---------------------------------|--------------------------|
| Appearance | Clear, colorless | Odor | None |
| Physical State | Liquid | pH | 2 |
| Flash Point | Not applicable | Autoignition Temperature | No data available |
| Boiling Point/Range | 100°C/212°F | Freezing Point | No information available |

| | | | |
|-----------------------|-----------------|-------------------------|-------------------|
| Solubility | Soluble | Evaporation Rate | No data available |
| 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 | Alkalis. |
| Conditions to Avoid | Direct sunlight. Excessive heat. |
| Hazardous Decomposition Products | Hazardous decomposition products formed under fire conditions - . Phosphorous oxides. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|--------------------|-----------------------|-----------------------------------|
| Phosphoric acid | 1530 mg/kg (Rat) | 2730 mg/kg (Rabbit) | 850 mg/m ³ (Rat) 1 h |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known | None Known |
| Water, distilled | None Known | None Known | None Known |

Chronic Toxicity

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|------------|------------|------------|------------|
| Phosphoric acid | None Known | None Known | None Known | None Known |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known | None Known | None Known |
| Water, distilled | None Known | None Known | None Known | None Known |

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

| Chemical Name | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|---|--|--|---|
| Phosphoric acid | None Known | None Known | None Known |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known | None Known |
| Water, distilled | None Known | None Known | None Known |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Microtox | Daphnia Magna (Water Flea) |
|---|-------------------|--|------------|----------------------------|
| Phosphoric acid | None Known | LC50 3 - 3.5 mg/L <i>Gambusia affinis</i> 96 h | None Known | EC50 = 4.6 mg/L 12 h |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known | None Known | None Known |
| Water, distilled | None Known | None Known | None Known | None Known |

Persistence and Degradability When released into the soil, this material may leach into groundwater and the acidity may be readily reduced by natural water hardness minerals.

| Chemical Name | Log Pow |
|---|------------|
| Phosphoric acid | None Known |
| Phosphoric acid, monosodium salt, monohydrate | None Known |
| Water, distilled | None Known |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of in accordance with local regulations.

| Chemical Name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|--|--------------------------------------|------------------------|------------------------|------------------------|
| Phosphoric acid - 7664-38-2 | None Known | None Known | None Known | None Known |
| Phosphoric acid, monosodium salt, monohydrate - 10049-21-5 | None Known | None Known | None Known | None Known |
| Water, distilled - 7732-18-5 | None Known | None Known | None Known | None Known |

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

| Component | TSCA | DSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---|---------|-----|---------------|-------|-------|----------|-------|------|
| Phosphoric acid 7664-38-2 (<2) | Present | X | X | 1-422 | X | KE-27427 | X | X |
| Phosphoric acid, monosodium salt, monohydrate 10049-21-5 (1-5) | TSCA | DSL | EINECS/ELINCS | ENCS | X | KECL | X | X |
| Water, distilled 7732-18-5 (to 100%) | Present | X | X | ENCS | X | KE-35400 | X | X |

U.S. 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 % |
|---|------------|----------|-------------------------------|
| Phosphoric acid | 7664-38-2 | <2 | None Known |
| Phosphoric acid, monosodium salt, monohydrate | 10049-21-5 | 1-5 | None Known |
| Water, distilled | 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 |

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).

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|-----------------------------|------------------------|---------------------------|----------------------------|
| Phosphoric acid 7664-38-2 (<2) | 5000 lb | None Known | None Known | X |
| Phosphoric acid, monosodium salt, monohydrate 10049-21-5 (1-5) | None Known | None Known | None Known | None Known |
| Water, distilled 7732-18-5 (to 100%) | 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 HAPs.

| Chemical Name | CAS-No | Weight % | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|------------|----------|------------|---------------|-------------------------|-------------------------|
| Phosphoric acid | 7664-38-2 | <2 | None Known | None Known | None Known | None Known |
| Phosphoric acid, monosodium salt, monohydrate | 10049-21-5 | 1-5 | None Known | None Known | None Known | None Known |
| Water, distilled | 7732-18-5 | to 100% | None Known | None Known | None Known | None Known |

CERCLA

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|---|--------------------------|------------------------------------|
| Phosphoric acid | 5000 lb | None Known |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known |
| Water, distilled | None Known | None Known |

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

| Chemical Name | CAS-No | California Prop. 65 |
|---|------------|---------------------|
| Phosphoric acid | 7664-38-2 | None Known |
| Phosphoric acid, monosodium salt, monohydrate | 10049-21-5 | None Known |
| Water, distilled | 7732-18-5 | None Known |

U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---------------|------------|--------------|------------|--------------|
| Phosphoric acid | X | X | X | None Known | X |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known | None Known | None Known | None Known |
| Water, distilled | None Known | None Known | None Known | None Known | None Known |

International Regulations

Mexico - Grade

| Chemical Name | Carcinogen Status | Exposure Limits |
|---|-------------------|----------------------------------|
| Phosphoric acid | None Known | Mexico: TWA= 1 mg/m ³ |
| Phosphoric acid, monosodium salt, monohydrate | None Known | None Known |
| Water, distilled | 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 | WHMIS Hazard Class |
|---|---|
| Phosphoric acid 7664-38-2 (<2) | 1 % E |
| Phosphoric acid, monosodium salt, monohydrate 10049-21-5 (1-5) | Uncontrolled product according to WHMIS classification criteria |
| Water, distilled 7732-18-5 (to 100%) | Uncontrolled product according to WHMIS classification criteria |





| Chemical Name | NPRI |
|-----------------|------|
| Phosphoric acid | X |

Legend

X - Listed

16. OTHER INFORMATION

| NFPA | HMIS | PPE | Transport Symbol | | | | | | |
|---|---|---------------|------------------|-------------|---|------------|---|--|--|
|  | <table border="1"> <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 Regulatory Affairs Department

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Revision Note
Initial Release

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 MSDS