

SAFETY DATA SHEET

Revision Date: February 23, 2018

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SECTION 1: IDENTIFICATION

Product Identifier

Product Name: Lime Remover

Recommended Use of the Chemical and Restrictions on Use

Recommended Use: Cleaner for the removal and control of lime deposits

Details of the Supplier of the Safety Data Sheet

Supplier Address: Luseaux Laboratories, Inc. Luseaux Laboratories Inc.
4625 N Santa Fe Drive or 16816 Gramercy Place
Kingman, AZ 86401 Gardena, CA 90247

Emergency Telephone Number

Company Phone Number: Arizona Location: 928-692-0192
California Location: 310-324-1555

Emergency Telephone: CHEMTREC: 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Appearance: Yellow-green liquid

Physical State: Liquid

Odor: Mild acid odor

Classification

Serious eye damage/eye irritation	Category 1
Skin corrosion/irritation	Category 1A



Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage.

Precautionary Statements – Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling.

Precautionary Statements – Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
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Chemical Name	CAS No	Weight %
Phosphoric Acid	7664-38-2	Not identified*

*The specific percentages are not identified due to "Trade Secret" status. In emergency situation, further information may be obtained by calling the emergency information number listed above. Reference 29 CFR 1910.1200

SECTION 4: FIRST AID MEASURES

First Aid Measures

Eye Contact	Immediately flush eyes with running water for at least 15 minutes. Seek immediate medical attention.
Skin Contact	For minor skin contact, avoid spreading material on unaffected skin. . Wash skin with soap and water. Remove and isolate contaminated clothing and shoes. Wash contaminated clothing before reuse.
Inhalation	After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR)
Ingestion	Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms	Eye contact is corrosive and can cause severe burns to eyes, redness, tearing, and blurred vision. Skin contact causes severe skin burns and de-fatting, dermatitis. Inhalation may cause severe respiratory tract irritation. Vapor is harmful. Ingestion causes corrosion, burns to mouth and esophagus, abdominal pain, chest pain, nausea, vomiting, diarrhea, seizures. Aspiration of the swallowed or vomited product can cause severe pulmonary complications. May be harmful or fatal if swallowed.
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Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians	All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
Other Information	Call 911 or emergency medical service. Ensure that medical personnel are aware of the material involved and take precautions to protect themselves. Keep victim warm and quiet.

SECTION 5: FIRE-FIGHTING MEASURES
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Suitable Extinguishing Media

Not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: None known

Specific Hazards Arising from the Chemical

Not combustible. Under fire conditions, toxic, corrosive fumes are emitted – oxides of phosphorus. Flammable hydrogen gas will be liberated if material contacts active metal. Closed containers may explode if exposed to extreme heat.

Protective equipment and precautions for firefighters

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

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures**

Personal Precautions: Ventilate enclosed areas. Keep unprotected personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use complete chemical protective suit with self-contained breathing apparatus.

Environmental Precautions: Prevent material from waterways, sewers, basements or confined areas. Runoff from fire control or dilution water may cause pollution.

Methods and Material for Containment and Cleaning Up

Methods for Containment: Exercise caution during neutralization as considerable heat may be generated. Neutralize spill area with soda ash, sodium bicarbonate or lime. Flush neutralized spill with copious amounts of water.

Methods for Cleaning Up: Keep unauthorized personnel away. Dike spill using absorbent or impervious materials such as earth, sand or clay. Sweep spilled material into dry, sealable containers. Dike or retain dilution water or water from firefighting for later disposal.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Advice on Safe Handling: Wear personal protective equipment as shown in Section 8. Do not get on skin or in eyes. Avoid breathing vapors and mists. Do not ingest. Handle and open container with care. Use only with adequate ventilation. Use caution when combining with water. DO NOT add water to corrosive liquid. ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. This product reacts violently with bases liberating heat and causing spattering.

Conditions for Safe Storage, Including and Incompatibilities

Storage Conditions: Store in cool/low-temperature, well-ventilated, dry place. Store locked up. Keep away from incompatible materials. Ventilate enclosed areas.

Incompatible Materials: Fluorine, strong oxidizing agents, strong reducing agents, bases, metals, sulfur trioxide, phosphorous pentoxide.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phosphoric Acid 7664-38-2	TWA: 1 mg/m ³	TWA: 1 mg/m ³	TWA: 1 mg/m ³

Appropriate Engineering Controls

Engineering Controls Apply technical measures to comply with occupational exposure limits. Good general ventilation should be used and should be matched to conditions.

Individual Protections Measures, such as Personal Protective Equipment

Eye/Face Protection: Wear face shield and eye protection.

Skin and Body Protection: Wear protective clothing as warranted.

Hands: Wear protective gloves selected with regard to both durability and well as permeation resistance.

Respiratory: Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

General Hygiene Considerations: Do not get in eyes or on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Promptly remove clothing that becomes contaminated. Launder or discard contaminated clothing. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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Information and Basic Physical and Chemical Properties

Physical State: Liquid

Odor: Mild acid odor

Appearance: Medium Yellow-green

Color: Yellow-green

Odor Threshold: Not determined

Property	Value	Property	Value
pH – 1% solution	2.0 to 3.0	Melting/freezing point	Not determined
Boiling point	> 212°F	Flash point	Not determined
Evaporation rate	Not determined	Flammability	Not flammable
Flammability limits/ air	Not determined	Vapor pressure	13 mm HG @ 68° F
Vapor density	Not determined	Specific gravity	1.14
Water solubility	Complete	Solubility in other solvents	Not determined
Partition coefficient	Not determined	Auto-ignition temp	Not determined
Decomposition temp	Not determined	Kinematic viscosity	Not determined
Dynamic Viscosity	Not determined	Explosive properties	Not determined
Oxidizing properties	Not determined	Bulk Density	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions

Chemical Stability

Stable

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Isolate from alkalis.

Incompatible Materials

Fluorine, strong oxidizing agents, strong reducing agents, bases, metals, sulfur trioxide, phosphorous pentoxide.

Hazardous Decomposition Products

Oxides of phosphorous (Phosphorous Pentoxide)

SECTION 11: TOXICOLOGICAL INFORMATION**Information on Likely Routes of Exposure****Product Information**

Eye Contact	Corrosive. Can cause permanent damage to the cornea, blindness.
Skin Contact	Causes severe skin burns and eye damage.
Inhalation	May cause corrosive burns – irreversible damage.
Ingestion	Causes corrosion, burns to mouth and esophagus.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphoric Acid 7664-38-2	= 1.25 mg/kg (Rat)	= 595 mg/kg (Rabbit)	= 25.5 mg/m ³ (Rat)

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity Not classifiable as a human carcinogen.

Numerical Measures of Toxicity-Product

Not determined

SECTION 12: ECOLOGICAL INFORMATION

Not determined

SECTION 13: DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: TRANSPORT INFORMATION
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<u>DOT</u>	NA 1760, COMPOUND, CLEANING, LIQUID (Contains Phosphoric Acid) 8, PG III,
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SECTION 15: REGULATORY INFORMATION

International Inventories

Legend:

Not determined

US Federal Regulations

Section 313 of Sara Title III

Phosphoric Acid, CAS No 7664-38-2 15% to 75% 5000 lb final RQ; 2270 kg final RQ

US State Regulations

Calif. Prop. 65 Warning: This product may contain a trace amount of one or more of the chemicals on the California list of known carcinogens or substances known to cause birth defects or other reproductive harm. These are not added to the product but occur naturally in the raw materials or processing equipment.

SECTION 16: OTHER INFORMATION

<u>HMIS</u>	Health Hazards	Flammability	Reactivity	Personal Protection
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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet