

Material Safety Data Sheet

the works[®] Rust, Lime & Calcium Remover

Item UPC Numbers 74157-03330 (32 oz.) 74157-~~03370~~ (13½ oz.)

03330

Section I. Manufacturer Information

Manufacturer: Lime-O-Sol Company
P.O. Box 395 (State Road 4)
Ashley, IN 46705
Date Issued or Last Revised: 05 February 2001
Supersedes: 21 September 2000

EMERGENCY Telephone Number	1-800-424-9300
(CHEMTREC)	
Telephone Number for Information	(219) 587-9151
(Non-Emergency)	

Section II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Hazardous Components</u>	<u>Weight %</u>	<u>CAS #</u>	<u>EXPOSURE LIMIT(S)</u>
ortho-Phosphoric Acid	15 - 25%	7664-38-2	OSHA TWA8 PEL 1 mg/m ³ ACGIH TLV 1 mg/m ³ OSHA STEL 3 mg/m ³ ACGIH STEL 3 mg/m ³
Acetic acid, hydroxy- (glycolic acid)	1 - 5%	79-14-1	OSHA PEL NOT ESTABLISHED ACGIH TLV NOT ESTABLISHED
<u>Other Ingredients</u>	<u>Weight %</u>	<u>CAS #</u>	<u>EXPOSURE LIMIT(S)</u>
Water (and other non-hazardous ingredients)	70 - 80%	7732-18-5 n/a	OSHA PEL NOT ESTABLISHED ACGIH TLV NOT ESTABLISHED

Section III. PHYSICAL/CHEMICAL CHARACTERISTICS

APPEARANCE	green, non-viscous, clear to slightly hazy liquid
ODOR	mild chemical
SPECIFIC GRAVITY (H ₂ O = 1)	1.148
LIQUID DENSITY (lbs./gallon)	9.57
pH	< 2
FREEZING POINT	not available
BOILING POINT	not available
VAPOR PRESSURE (mm Hg)	not available
VAPOR DENSITY (AIR = 1)	not available
SOLUBILITY IN WATER	Complete
Evaporation Rate (butyl acetate = 1)	>1

Section IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (TCC)	None detected
Autoignition Temperature	None
Flammable Limits	LEL: not applicable UEL: not applicable
Extinguishing Media:	use appropriate extinguisher for fire in surrounding area
Special Fire Fighting Procedures	Note above
Unusual Fire & Explosion Hazards	Although not flammable, a latent fire or explosion hazard exists when product is in contact with certain metals, due to the separation of flammable hydrogen gas.

Section V. REACTIVITY DATA

Stability unstable stable
Conditions to Avoid Contact with metals or metallic surfaces
Incompatibility (Materials to Avoid) Avoid contact with corrosive materials and other cleaners. Contact with hypochlorites (bleaches), sulfides or cyanides will release toxic gases.

Hazardous Decomposition / Products Flammable hydrogen gas may be released on contact with certain metals.

Hazardous polymerization May occur Will not occur.
Conditions to Avoid None.

Section VI. HEALTH HAZARD DATA

ACUTE HEALTH HAZARDS

Skin and eye irritant. (see *EMERGENCY AND FIRST AID PROCEDURES*)

CHRONIC HEALTH HAZARDS

NONE KNOWN

SIGNS AND SYMPTOMS OF EXPOSURE / EMERGENCY AND FIRST AID PROCEDURES

INHALATION – Inhalation of mist or vapor may cause irritation to respiratory tract, with possible shortness of breath and feeling of tightness in chest.

Avoid breathing vapors or mist. Move patient to fresh air and call physician if breathing difficulty develops. Administer oxygen, if available. If patient is not breathing, give artificial respiration.

EYES – May cause permanent eye injury, as well as pain and severe irritation.

Immediately flush eyes with clean water. Remove contact lenses, if applicable. Continue flushing for 15 minutes, holding eyelids open. Get medical attention immediately.

DERMAL (skin) – May cause acute irritation or burns.

Immediately flush affected area of skin with water for at least fifteen minutes while removing contaminated clothing and shoes. Get medical attention immediately. Launder affected clothing and thoroughly clean contaminated shoes before reusing.

INGESTION – Ingested product may be harmful or fatal. Causes burns to mouth and throat, diarrhea, nausea and vomiting.

Do NOT induce vomiting unless directed to do so by a physician. If victim is conscious, give 2 - 3 glasses of water to drink. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and victim is conscious, give water to further dilute the chemical. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness, or is convulsing.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

CARCINOGENICITY

This product contains no known ingredients that are listed as known or suspected carcinogens by IARC, NTP, OSHA or ACGIH

Section VII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED

Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. For large spills, dike for later disposal.

WASTE DISPOSAL METHOD

Dispose of according to local, state and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Store bottle securely closed, in upright position. Follow label directions for use.

OTHER PRECAUTIONS

Avoid contact with eyes and skin.
Avoid breathing vapors.

Section VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (Will vary by use and conditions)

- None required if used as directed (AVOID BREATHING VAPORS OR MIST).

VENTILATION - ADEQUATE

- Local n/a
- Mechanical n/a
- Special n/a
- Other n/a

PROTECTIVE GLOVES

Rubber gloves

EYE PROTECTION

Safety glasses (with side shields), or goggles

OTHER PROTECTIVE EQUIPMENT

Rubber apron if using large amounts

WORK/HYGIENIC PRACTICES

Avoid contact with skin and eyes

Section IX. SPECIAL PRECAUTIONS*

SPECIAL LABELING INFORMATION:

HMIS Rating:	Health: 2	Hazard Ratings: 0 – insignificant hazard
	Flammability: 0	1 – slight hazard
	Reactivity: 0	2 – moderate hazard
NFPA Rating:	Health: 2	3 – high hazard
	Flammability: 0	4 – very high hazard
	Reactivity: 0	

NOTICES

*This document has been prepared using data from sources considered scientifically and technically reliable. Actual conditions of use and handling of this product are beyond Seller's control. Seller shall not be responsible for the mishandling or misuse of the product, or treatment upon exposure. No statement contained herein constitutes a warranty, express or implied. User is responsible to evaluate all available information when using product for any particular use, and to comply with all federal, state and local laws and regulations.

*Due to different applicable laws and regulations, and different volumes of the chemicals/mixtures involved, the information contained herein may not match the label on the consumer product.

*Various Government agencies (i.e. Department of Transportation, Occupational Safety and Health Administration, Food and Drug Administration and others) may have specific regulations concerning the transportation, handling, storage or use of this product that may not be contained herein. The customer or user of this product should be familiar with these regulations.