



SAFETY DATA SHEET

NOTICE: Judgment may be based on indirect test and technical literature. The OSHA Hazard Communication Standard only requires SDS's and special labeling for materials defined as "HAZARDOUS"; see 29 CFR 1910.1200 (c). This document may be about a product which is NOT hazardous but is provided as information for our customers. See references for information.

SECTION 1. IDENTIFICATION

Product Identifier: LSR
Product Use: Lime Scale Remover
UN #: 3264
Manufactured By: Kor-Chem Inc.
5800 Bucknell Drive
Atlanta, GA 30336

Product Identification # (PIF): 01402
Emergency Telephone #: 1-800-255-3924
General Information #: 404-344-9580
Prepared by: Sonya Lockhart
Date Prepared: January 22, 2014

SECTION 2. HAZARD(S) IDENTIFICATION

HMIS Ratings: Health 3, Fire 0, Reactivity 0



Signal Word: DANGER

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

OSHA Hazard Class: Skin Corrosion/Irritation: Category 1, Highly Causes severe skin burns and eye damage, H314
Serious Eye Damage/Eye Irritation: Category 1, Causes serious eye damage, H318

Product VOC: 0%

Potential Health Effects:

- Eye Contact: Corrosive to eyes. May cause severe irritation, burns and permanent eye damage if left untreated.
- Skin Contact: Corrosive to skin. May cause severe irritation, burns and permanent skin damage and scarring if left untreated. May cause drying and flaking of the skin (dermatitis).
- Inhalation: Mists or sprays may cause irritation of pulmonary system, respiratory system and mucous membranes, coughing and sore throat. May cause chemical pneumonitis and pulmonary edema.
- Ingestion: Swallowing large amounts can be fatal. Causes burning and irritation of digestive system.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Max. %
Phosphoric Acid	7664-38-2	27
Hydroxyacetic Acid	79-14-1	10

SECTION 4. FIRST AID MEASURES

- Eyes: Flush well with water for at least 15 minutes, holding eyelids open. Remove any contact lenses. Seek medical attention.
- Skin: Wash with soap and water and flush skin with water for 15 minutes. Remove contaminated clothing and launder before reuse. If irritation persists, seek medical attention.
- Inhalation: Move to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration and call a physician.
- Ingestion: DO NOT INDUCE VOMITING. Call a physician immediately. Victim should rinse mouth with large amounts of water, then drink one glass of milk or water to dilute. Never give anything by mouth to an unconscious person.

SECTION 5. FIRE-FIGHTING MEASURES

Flammability: Not Flammable

Flash Point: Will not flash

- Extinguishing Media: Foam, dry chemical, carbon dioxide fire extinguishers, water fog or spray. Do not spray water directly on fire. Use water spray to cool containers.
- Specific hazards arising from chemical: This product is corrosive and presents a significant contact hazard to firefighters.
- Hazardous combustion products: Oxides of carbon and phosphorous.
- Firefighting protective equipment: Wear a self-contained breathing apparatus with a full face piece with appropriate turn-out gear and chemical resistant personal protective equipment.
- Sensitivity to static discharge: This product is not combustible.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Eliminate all ignition sources. Ventilate area.

- For Small Spills: Avoid dispersal of material and runoff into soil, waterways, drains and sewers. Neutralize spill with lime or soda ash or other acid neutralizing agent. Litmus paper may be used to confirm neutralization. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dispose of contaminated absorbent material in accordance with local, state and federal regulations.
- For Large Spills: Large spills cannot occur due to packaging.

SECTION 7. HANDLING AND STORAGE

- Handling: Wear personal protection equipment. Use with adequate ventilation. Avoid breathing mists and sprays. Never use welding or cutting torch on or near drum (even empty) because product can ignite explosively. Do not premix with other chemicals.
- Storage: Keep away from heat, flame, or sunlight. Keep container closed when not in use. Protect from physical damage. Store away from alkalis, carbides, cyanides, sulfides, metal powders, sodium hypochlorite and sodium bisulfate.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	CAS #	OSHA/PEL	TLV	STEL
Phosphoric Acid	7664-38-2	1 mg/m3	1 mg/m3	3 mg/m3
Hydroxyacetic Acid	79-14-1	25 mg/m3	25 mg/m3	NE

Engineering Controls: Provide adequate ventilation. Observe occupational exposure limits and keep the risk of exposure to a minimum.

Personal protective equipment:

- Eye: Safety glasses with side shields or splash proof goggles and face shield.
- Skin : Chemical resistant gloves
- Respirator: Use NIOSH approved protection if PEL is exceeded or if vapors are causing irritation.
- Clothing: Normal materials handling clothing and apron
- Other: Use only in a well ventilated area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Description: Red to purple, clear liquid
- Odor: Acrid odor
- pH, Neat: <1
- Boiling point: Not determined
- Flash Point: Will not flash
- Evaporation Rate (n-butyl acetate=1): <1
- Upper Flammability Limit (% by volume): Not determined
- Lower Flammability Limit (% by volume): Not determined
- Vapor Pressure: Not determined
- Vapor Density: (Air = 1): <1
- Specific Gravity, (water = 1.0): 1.170 g/ml
- Water Solubility: Complete
- Auto-ignition Temperature: Not determined
- %Volatile/Volume: 72%

SECTION 10. STABILITY AND REACTIVITY

- Chemical stability: Stable.
- Reactivity: Not reactive under normal conditions.
- Hazardous polymerization: Will not occur.
- Conditions to avoid: Heat, flame and sparks. Do not mix with other chemicals
- Incompatibility with other substances: Incompatible with alkalis, oxidizers, carbides, cyanides, sulfides, metal powders. Do not mix this product with sodium hypochlorite or sodium bisulfate – a deadly gas can be formed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

- Oral (LD50 Rat): >5000mg/kg
- Dermal (LD50 Rabbit): >5000mg/kg
- Inhalation (LC50 Rat): >20mg/kg
- Corrosive to eyes and skin

Chronic Toxicity:

- Repeated skin contact may result in dermatitis.

SECTION 12. ECOLOGICAL INFORMATION

Acute Aquatic Effects:

- 96h LC-50 (fish): Not determined
- 96h EC-50 (invertebrates): Not determined
- 48h LC-50 (algae): Not determined
- Effect on Aquatic Life: This product can lower the pH of an aquatic environment and thus be extremely toxic to fish and aquatic plants. As with all chemicals, work practices should be aimed at eliminating environmental releases.
- Persistence and degradability: No data available

- Bioaccumulation: No data available
- Mobility: This product is soluble in water and may spread in water systems.

SECTION 13. DISPOSAL CONSIDERATIONS

- Disposal of Wastes: Do not dump into sewers, on the ground or into any waterways. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.
- Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied. Do not cut, drill, grind or weld on or near the container.
- RCRA: A waste containing this product may have the RCRA hazardous waste no. D002 (Corrosive) (40 CFR 261.22).

SECTION 14. TRANSPORT INFORMATION

United States DOT:

- UN/ID No.: UN3264
 - Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s., (Phosphoric Acid)
 - Hazard Class: 8
 - Packing Group: III
- USA: Label has to comply with OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 15. REGULATORY INFORMATION

TSCA: All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.30.

SARA Section 302: The components of this product are either not regulated or regulated, but present in negligible concentrations.

SARA TITLE III Section 311/312:

- Immediate (Acute) Health = Yes
- Delayed (Chronic) Health = No
- Fire Hazard = Yes
- Reactive Hazard = No

SARA Title 313: This material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels (40 CFR 372).

CERCLA: This product has a reportable quantity of 22,730 lbs. (Phosphoric Acid). This product is not considered a Hazardous Substance. The quantity of phosphoric acid does not equal or exceed the RQ in one package (49 CFR 171.8, definition of "Hazardous Substance").

United States Right-To-Know: Phosphoric Acid CAS# 7664-38-2 – Alaska, California, Florida, Illinois, Kansas, Massachusetts, Minnesota, Missouri, New Jersey, North Dakota, Pennsylvania, Rhode Island, Texas, West Virginia and Wisconsin.

Proposition 65: This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

RCRA: A waste containing this product may have the RCRA hazardous waste no. D002 (Corrosive) (40 CFR 261.22).

SECTION 16. OTHER INFORMATION

- Carefully read all instructions on label before handling this product.
- Keep out of reach of children.
- "FOR INDUSTRIAL USE ONLY"
- Legend:

Abbreviation	Full Name/Explanation
ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CNS	Central Nervous System
DOT	Department of Transportation
EC	Effective Concentration
HMIS	Hazardous Material Information System
LC	Lethal Concentration
LD	Lethal Dose
NA	Not Applicable
ND	Not Determined
NE	Not Established
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation Recovery Act
SARA	Superfund Amendments and Reauthorization Act
STEL	Short-Term Exposure Limit
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act

The information contained herein is based on data available to us and is believed to be correct. We make no warranty, however, expressed or implied regarding the accuracy of these data or the results obtained from the use thereof.

Regulatory Standards: DOT TITLE 49, Code of Federal Regulations 172.101: Parts 100 to 177, Revised 10/1/92.

SUPER FUND AMENDMENTS REAUTHORIZATION ACT OF 1986, TITLE III TOXIC SUBSTANCE CONTROL ACT LIST (TSCA)- INGREDIENTS LISTED. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES NATIONAL TOXICOLOGICAL PROGRAM (NTP) REPORT OF CARCINOGENS INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) MONOGRAPHS, OCCUPATIONAL SAFETY & HEALTH REGULATIONS. CODE OF FED. REGS. FOOD & DRUG, 21 PARTS 170 to 199, Revised 4/1/91, 173.310.