

Material Safety Data Sheet



Zep Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-793-7776

Section 1. Chemical Product and Company Identification

Product name **CALCIUM & LIME REMOVER**
Product use Acid Cleaner.
Product code **R115**
Date of issue **10/07/09** **Supersedes 05/11/09**

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-793-7776

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

DANGER !

CAUSES EYE, SKIN AND MUCOUS MEMBRANE BURNS.
HARMFUL IF SWALLOWED.

*Hazard Determination System (HDS): Health, Flammability, Reactivity



NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry

Eye contact. Dermal contact. Inhalation. Ingestion.

Eyes Causes eye burns. Direct contact with the eyes can cause irreversible damage, including blindness.

Skin Corrosive to the skin. The amount of tissue damage depends on length of contact. Skin contact can produce inflammation and blistering.

Inhalation Inhalation of the spray or mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath.

Ingestion Harmful if swallowed. May cause burns to mouth, throat and stomach.

Chronic effects Repeated or prolonged exposure to the substance can produce damage to lungs.

Carcinogenicity Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
-------------------------	-------	------	-----	-------	-----	------

None.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

	CAS number	% by Weight
PHOSPHORIC ACID	7664-38-2	30 - 40

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.

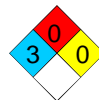
Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Chemical burns must be treated promptly by a physician. Get medical attention.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If irritation persists, get medical attention.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)



Flash Point	None.
Flammable Limits	Not applicable.
Flammability	Non-combustible.
Fire hazard	May emit toxic fumes under fire conditions. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.
Fire-Fighting Procedures	Use an extinguishing agent suitable for the surrounding fire. Fire-fighters should wear appropriate protective equipment.

Section 6. Accidental Release Measures

Spill Clean up	Put on appropriate personal protective equipment (see section 8). Stop leak if without risk. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
-----------------------	--

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage	Store in accordance with local regulations. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep out of the reach of children. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C).

Section 8. Exposure Controls/Personal Protection**Product name**

PHOSPHORIC ACID

Exposure limits

ACGIH / OSHA (United States).

TWA: 1 mg/m³ 8 hour(s).

ACGIH TLV (United States).

STEL: 3 mg/m³ 15 minute(s).**Personal Protective Equipment (PPE)**

Eyes	Splash goggles. Face shield.
Body	Wear appropriate protective clothing to prevent skin contact. Synthetic apron. Rubber gloves. Neoprene gloves. Butyl rubber gloves. Boots, Chemical resistant.
Respiratory	If concentrations exceed recommended exposure levels, wear an approved/certified respirator until engineering controls are achieved. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Clear. Colorless.
pH	1.0 - 1.5	Odor	Mild. Acidic.
Boiling Point	107.22°C (225°F)	Vapor Pressure	Not determined.
Specific Gravity	1.24	Vapor Density	Not determined.
Solubility	Soluble in water in any proportion.	Evaporation Rate	1 (Water = 1)
		VOC (Consumer)	0 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: some metals and alkalis.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	Carbon oxides (CO, CO ₂). Emits toxic fumes when heated to decomposition.

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Phosphoric Acid	LD50 Dermal	Rabbit	>3160 mg/kg	-
	LD50 Oral	Rat	4400 mg/kg	-

Section 12. Ecological Information

Environmental Effects May cause long-term adverse effects in the aquatic environment.

Aquatic Ecotoxicity


Not available.

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D002
 Classification: - (Hazardous waste.)
 Origin: - (RCRA waste.)

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)	Class 8: Corrosive liquid.	III	
IMDG Class	Not available.	Not available.	Not available.	-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Phosphoric Acid; RQ - 5000 lbs

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.