



Zep Commercial Sales & Service  
 1310 Seaboard Industrial Blvd.  
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 1-888-805-HELP (4357)  
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# Safety Data Sheet

## Section 1. Chemical Product and Company Identification

**Product name** Calcium, Lime & Rust Stain Remover  
**Product code** ZUCAL  
**Date of issue** 05/03/13 **Supersedes** 03/15/13

### Emergency Telephone Numbers

**For MSDS Information:**

Compliance Services 404-352-1680

**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**

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

**DANGER**

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CAUSES EYE AND SKIN BURNS. HARMFUL IF SWALLOWED.

**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**

Dermal contact. Eye contact. Inhalation.

**Eyes**

Causes eye burns. Direct contact with the eyes can cause irreversible damage, including blindness. Inflammation of the eye is characterized by redness, watering and itching.

**Skin**

Causes skin burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering. May cause allergic reactions in certain individuals.

**Inhalation**

Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation. May cause irritation of respiratory tract, coughing, shortness of breath.

**Ingestion**

Harmful if swallowed. Exposure can cause stomach pains, vomiting and diarrhea.

**Chronic effects**

Causes damage to the following organs: skin, eyes. Contains material which may cause damage to the following organs: kidneys, the reproductive system, gastrointestinal tract, upper respiratory tract. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

**Carcinogenicity**

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

**Product/ingredient name**

Not available.

**Additional Information: See Toxicological Information (Section 11)**

## Section 3. Composition/Information on Ingredients

**Name of Hazardous Ingredients**

**CAS number**

**% by Weight**

urea hydrochloride	506-89-8	1 - 10
Sulfamic Acid; sulphamidic acid	5329-14-6	1 - 5
Alkyl(C9-11) alcohol, ethoxylated	68439-46-3	1 - 5
Hydroxyacetic Acid; glycollic acid	79-14-1	1 - 5
citric acid	77-92-9	1 - 5

**Section 4. First Aid Measures**

- Eye Contact** Check for and remove any contact lenses. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. 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. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If irritation persists, get medical attention.
- Ingestion** Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

**Section 5. Fire Fighting Measures**

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



- Flash Point** None.
- Flammable Limits** Not available.
- Flammability** Non-combustible.
- Fire hazard** In a fire or if heated, a pressure increase will occur and the container may burst. May emit toxic fumes under fire conditions.
- Fire-Fighting Procedures** Use an extinguishing agent suitable for the surrounding fire. Do not release runoff from fire to drains or watercourses.

**Section 6. Accidental Release Measures**

- Spill Clean up** Put on appropriate personal protective equipment (see section 8). Stop leak if without risk. Move containers from spill area. 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. Do not use with other products. Do not reuse container. Observe label precautions. Wash thoroughly after handling.
- Storage** Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Keep out of the reach of children.

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

No exposure limit value known.

**Personal Protective Equipment (PPE)**

- Eyes** Splash goggles.
- Body** Neoprene Nitrile or Rubber Gloves. Wear long sleeves and other protective clothing to prevent repeated or prolonged skin contact.
- Respiratory** Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

**Section 9. Physical and Chemical Properties**

- |                         |  |                         |   |
|-------------------------|--|-------------------------|---|
| <b>Physical State</b>   | Liquid. [Clear.]   | <b>Color</b>            | Yellow. [Light]                         |
| <b>pH</b>               | <1   | <b>Odor</b>             | Sour. Acidic.                           |
| <b>Boiling Point</b>    | 100°C (212°F)  | <b>Vapor Pressure</b>   | Not available.                          |
| <b>Specific Gravity</b> | 1.067  | <b>Vapor Density</b>    | Not available.                          |
| <b>Solubility</b>       | Easily soluble in the following materials: cold water and hot water. | <b>Evaporation Rate</b> | Not available.                          |
|                         |  | <b>VOC (Consumer)</b>   | 0.05 % (w/w) 0.00445 lbs/gal (0.53 g/l) |

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	The product is stable.
<b>Incompatibility</b>	Reactive or incompatible with the following materials: oxidizing materials, organic materials, metals and alkalis. Do not use with other products.
<b>Hazardous Polymerization</b>	Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Hazardous Decomposition Products</b>	nitrogen oxides (NO, NO <sub>2</sub> etc.), sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> etc.), carbon oxides (CO, CO <sub>2</sub> ) and Ammonia gas

**Section 11. Toxicological Information****Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
sulphamic acid	LD50 Oral	Rat	3160 mg/kg	-
Alkyl(C9-11) alcohol, ethoxylated	LD50 Oral	Rat	1378 mg/kg	-
glycollic acid	LC50 Inhalation Vapor	Rat	7.1 ug/m3	4 hours
	LD50 Oral	Rat	1938 mg/kg	-
citric acid	LD50 Oral	Rat	3 g/kg	-

**Section 12. Ecological Information**

**Environmental Effects** Not available.

**Aquatic Ecotoxicity**

sulphamic acid	-	Acute LC50 14200 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
Alkyl(C9-11) alcohol, ethoxylated	-	Acute EC50 5.36 mg/L Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	-	Acute EC50 2686 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 8500 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
citric acid	-	Acute LC50 160000 ug/ L Marine water	Crustaceans - Green or European shore crab - Carcinus maenas - Adult	48 hours

**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 - Corrosivity  
Origin: RCRA waste.

**Section 14. Transport Information**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
<b>DOT Classification</b>	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Sulfamic Acid) or Consumer commodity or Limited quantity	8	II	
<b>TDG Classification</b>	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Sulfamic Acid) or Limited quantity	8	II	
<b>IMDG Class</b>	UN3264	Corrosive liquid, acidic, inorganic, n.o.s. (Sulfamic Acid) or Limited quantity	8	II	

**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) 311:** No products were found.

**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.

All components are listed or exempted.

**State Regulations****California Prop 65**

No products were found.

**Canada****WHMIS (Canada)**

Class D-1B: Material causing immediate and serious toxic effects (Toxic).  
Class D-2B: Material causing other toxic effects (Toxic).  
Class E: Corrosive material

**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.