



Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name **Calcium, Lime & Rust Stain Remover**
Product code **ZUCAL**
Date of issue **05/01/09** **Supersedes**

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

DANGER !

CAUSES EYE AND SKIN 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

Dermal contact. Eye contact. Inhalation.

- Eyes** Causes eye burns. Direct contact with the eyes can cause irreversible damage, including blindness.
- 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.
- Ingestion** Harmful if swallowed. May cause burns to mouth, throat and stomach.

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

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

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

HYDROCHLORIC ACID; muriatic acid; hydrogen chloride; HCl	7647-01-0	1 - 5
HYDROXYACETIC ACID; glycolic acid; hydroxyethanoic acid	79-14-1	1 - 5
SULFAMIC ACID; amidosulfonic acid; amidosulfuric acid	5329-14-6	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 sewers or waterways.

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.
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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**

HYDROCHLORIC ACID; muriatic acid; hydrogen chloride; HCl

Exposure limits

ACGIH TLV/OSHA PEL (United States).

CEIL: 5 ppm 8 hour(s).

OSHA PEL (United States).

CEIL: 7 mg/m³ 8 hour(s).**Personal Protective Equipment (PPE)**

Eyes	Splash goggles.
Body	Wear appropriate protective clothing to prevent skin contact. Recommended: Neoprene gloves. Rubber gloves. Wear apron or coverall if there is a risk of exposure to splashes.
Respiratory	Use with adequate ventilation. A respirator is not needed under normal and intended conditions of product use.

**Section 9. Physical and Chemical Properties**

Physical State	Liquid.	Color	Clear. Light yellow.
pH	<1	Odor	Sour. Acidic.
Boiling Point	100°C (212°F)	Vapor Pressure	Not determined.
Specific Gravity	1.067	Vapor Density	Not determined.
Solubility	Easily soluble in the following materials: cold water.	Evaporation Rate	Not determined.
		VOC (Consumer)	0 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Do not use with other products. Reactive or incompatible with the following materials: oxidizing materials, organic materials, metals and alkalis.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Sulfamic Acid	LD50 Oral	Rat	3160 mg/kg	-
Hydrochloric Acid	LD50 Oral	Rabbit	900 mg/kg	-
	LC50 Inhalation Vapor	Rat	3124 ppm	1 hours
Hydroxyacetic Acid	LD50 Oral	Rat	1938 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.2 mg/L	4 hours
	LC50 Inhalation Vapor	Rat	3.6 mg/L	4 hours

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

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.(Hydrochloric acid, Sulfamic acid)	8	II	
TDG Classification	UN3264	Corrosive liquid, acidic, inorganic, nos (Hydrochloric acid, Sulfamic acid)	8 (9)	II	 
IMDG Class	Not determined.				

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: Hydrochloric Acid (RQ 5,000 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.

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.