



ENFORCER Products, Inc.  
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1-888-805-HELP

**Material Safety Data Sheet  
and Safe Handling and Disposal Information**

**Section 1. Chemical Product and Company Identification**

**Product Name** Calcium, Lime & Rust Stain Remover  
**Product Code** HD-RUST-128/32 CN-RUST-32/128  
**Formula No.** FRUSTB  
**Date of issue** 01/31/03 **Supersedes** 03/26/02

**Emergency telephone number** **For MSDS Information:**  
Compliance Services (404) 352-1680  
**For a Medical Emergency:**  
INFOTRAC  
(877) 541-2016 (Toll Free - Calls Recorded)  
**For a Transportation Emergency:**  
CHEMTREC  
(800) 424-9300 (Toll Free - Calls Recorded)

**Prepared by** Compliance Services Group  
Acuity Specialty Products Group  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

**Section 2. Composition, Information on Ingredients**

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
1) HYDROCHLORIC ACID; muriatic acid; hydrogen chloride	7647-01-0	0-5	<b>ACGIH (United States).</b> TWA: 5 ppm
2) SULFAMIC ACID; amidosulfonic acid	5329-14-6	0-5	<b>OSHA (United States).</b> CEIL: 5 ppm
3) HYDROXYACETIC ACID; glycolic acid; hydroxyethanoic acid	79-14-1	0-5	Not available.

**Section 3. Hazards Identification**

**Acute Effects** **Routes of Entry** Eye contact. Inhalation. Ingestion.

- Eyes** Very hazardous in case of eye contact (corrosive).
- Skin** Hazardous in case of skin contact (corrosive). Skin contact may produce burns.
- Inhalation** Slightly hazardous in case of inhalation (lung sensitizer). Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.
- Ingestion** Very hazardous in case of ingestion. May be fatal if swallowed. May cause burns to mouth, throat and stomach.

**Chronic Effects** Repeated or prolonged contact with spray 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.

**Carcinogenic Effects** Not listed as carcinogen by OSHA, NTP or IARC.

See Toxicological Information (section 11)

HMIS	
<b>Health</b>	<b>3</b>
<b>Fire Hazard</b>	<b>0</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b>	<b>B</b>

**Section 4. First Aid Measures**

- Eye Contact** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 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. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.
- 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** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

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### Section 5. Fire Fighting Measures

**Flash Point** Not applicable.

**Flammable Limits** Not applicable.

**Flammability** Not applicable.

**Fire Hazard** Not applicable.

**Fire-Fighting Procedures** Not applicable.



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### Section 6. Accidental Release Measures

**Spill Clean up** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of sodium carbonate.**

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### Section 7. Handling and Storage

**Handling** Do not ingest. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Storage** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between 40°F and 120°F.

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### Section 8. Exposure Controls, Personal Protection

#### Personal Protection

#### Protective Clothing (Pictograms)

**Eyes** Splash goggles.

**Body** Protective gloves should be worn under normal conditions of use.

**Respiratory** A respirator is not needed under normal and intended conditions of product use.



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### Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid.	<b>Color</b>	Yellow. (Light.)
<b>pH</b>	<1 [Acidic.]	<b>Odor</b>	Sour. (Slight.)
<b>Boiling Point</b>	100°C (212°F)	<b>Vapor Pressure</b>	Not available.
<b>Specific Gravity</b>	1.068 (Water = 1)	<b>Vapor Density</b>	Not available.
<b>VOC (Consumer)</b>	0 (g/l).	<b>Evaporation Rate</b>	Not available.
<b>Solubility</b>	Easily soluble in cold water, hot water.		

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### Section 10. Stability and Reactivity

**Stability and Reactivity** The product is stable.

**Incompatibility** Incompatible with ammonia.

**Hazardous Decomposition Products** Not determined.

**Hazardous Polymerization** Will not occur.

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### Section 11. Toxicological Information

#### Toxicity to Animals

##### Hydrogen chloride:

ORAL (LD50): Acute: 900 mg/kg [Rat.].

##### Hydroxyacetic acid:

ORAL (LD50): Acute: 1950 mg/kg [Rat.].

##### Sulfamic acid:

ORAL (LD50): Acute: 3160 mg/kg [Rat.].

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### Section 12. Ecological Information

**Ecotoxicity** Not available.

**Biodegradable/OECD** Not available.

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### Section 13. Disposal Considerations

**Waste Information** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste Stream** Code: D002  
Classification: Corrosive  
Origin: RCRA

**Consult your local or regional authorities.**

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### Section 14. Transport Information

**Proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s.(Hydrochloric acid, Sulfamic acid) or Consumer Commodity ORM-D in limited quantities

**DOT Classification** Class 8: Corrosive liquid.

**UN number** UN3264

**TDG Classification** TDG Class 8: Corrosive liquid; 9.2: Environmentally hazardous material.

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**Section 15. Regulatory Information**

**U.S. Federal Regulations**      SARA 313 toxic chemical notification and release reporting: Hydrochloric acid  
Clean Water Act (CWA) 311: Hydrogen chloride  
Clean air act (CAA) 112 regulated toxic substances: No products were found.

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**State Regulations**              California prop. 65: No products were found.

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**WHMIS (Canada)**              Class D-1B: Material causing immediate and serious toxic effects (TOXIC).  
Class E: Corrosive liquid.

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**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.*