



ZEP Manufacturing Company  
 Acuity Specialty Products Group, Inc.  
 P.O. Box 2015  
 Atlanta, GA 30301  
 1-877-I-BUY-ZEP (428-9937)  
 www.zep.com

# Material Safety Data Sheet

## and Safe Handling and Disposal Information

### Section 1. Chemical Product and Company Identification

**Product name** ZEP FS LIME REMOVER  
**Product Use** Lime Scale Remover  
**Product Code** 2445  
**Date of Issue** 01/03/05 **Supersedes** 12/11/97

**Emergency Telephone Numbers** For MSDS Information:  
 Acuity Specialty Products Group, Inc.  
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

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

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

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



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FAUQUIER WATER SANITATION AUTH  
 REMINGTON WASTE WATER PLANT  
 12523 LUCKY HILL RD  
 REMINGTON VA 22734-9644

Printing date: 03/31/06

### Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
PHOSPHORIC ACID	7664-38-2	30 - 40	ACGIH / OSHA (United States). TWA: 1 mg/m <sup>3</sup> 8 hour(s). ACGIH TLV (United States). STEL: 3 mg/m <sup>3</sup> 15 minute(s).

### Section 3. Hazards Identification

#### Acute Effects

**Routes of Entry** Dermal contact. Eye contact.

**Skin** Hazardous in case of skin contact (corrosive). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Eyes** Hazardous in case of eye contact (corrosive). Direct contact with the eyes can cause irreversible damage including blindness. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract.

**Inhalation** Hazardous in case of inhalation (lung irritant). 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** Harmful if swallowed. May cause burns to mouth, throat and stomach.

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

#### HMIS

Health	3
Flammability	0
Reactivity	0
Personal Protection	D

#### Carcinogenic Effects

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

#### 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.

See Toxicological Information (section 11)

### 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. 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. Get medical attention.

#### Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. 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**

**Flash Point** Not applicable **Flammable Limits** Not applicable  
**Flammability** Non combustible.  
**Fire Hazard** May emit toxic fumes under fire conditions.  
**Fire-Fighting Procedures** Use an extinguishing agent suitable for surrounding fires.

**Section 6. Accidental Release Measures**

**Spill Clean up** Put on appropriate personal protective equipment (see Section 8). Absorb with an inert material and place in an appropriate waste disposal container. To clean the floor and all objects contaminated by this material, use detergent. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Section 7. Handling and Storage**

**Handling** Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Keep container closed. Use only with adequate ventilation. Wash contaminated clothing before reusing. Do not reuse product container. Wash thoroughly after handling.  
**Storage** Keep container tightly closed and dry. Keep container in a cool, well-ventilated area. Store between 40°F - 120°F. Keep out of the reach of children.

**Section 8. Exposure Controls, Personal Protection****Personal Protection**

**Eyes** Chemical splash goggles or face shield.  
**Body** Wear appropriate protective clothing to prevent skin contact.  
 Recommended: Rubber gloves. Neoprene gloves. Nitrile gloves. Chemical resistant apron. Chemical resistant boots.

**Protective Clothing (Pictograms)**

**Respiratory** Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

**Section 9. Physical and Chemical Properties**

<b>Physical State</b>	Liquid.	<b>Color</b>	Clear. Colorless.
<b>pH</b>	1.0-1.5	<b>Odor</b>	Mild. Acidic.
<b>Boiling Point</b>	107.22°C (225°F)	<b>Vapor Pressure</b>	Not determined.
<b>Specific Gravity</b>	1.24 (Water = 1)	<b>Vapor Density</b>	Not determined.
<b>Solubility</b>	Easily soluble in cold water, hot water.	<b>Evaporation Rate</b>	1 compared to Water
		<b>VOC (Consumer)</b>	0 (g/l).

**Section 10. Stability and Reactivity**

**Stability and Reactivity** The product is stable.  
**Incompatibility** Reactive with oxidizing agents, alkalis.  
**Hazardous Polymerization** Will not occur.  
**Hazardous Decomposition Products** Carbon Dioxide, Carbon Monoxide and other organic materials.. When heated to decomposition it emits toxic fumes.

**Section 11. Toxicological Information**

**Toxicity to Animals** **Phosphoric Acid:**  
 ORAL (LD50): Acute: 4400 mg/kg [Rat].  
 DERMAL (LD50): Acute: >3160 mg/kg [Rabbit].

**Section 12. Ecological Information**

**Ecotoxicity** Not available.  
**Biodegradable/OECD** Not available.

**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: - (Hazardous waste.)  
 Origin: - (RCRA waste.)

Consult your local or regional authorities.

**Section 14. Transport Information**

**Proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)  
**DOT Classification** DOT Class 8: Corrosive liquid. **UN number** 3264

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.

**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: Phosphoric Acid RQ 5000 lbs. (2268 kg)

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.

**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.*