



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-FLO
Product Use Industrial Drain Cleaner
Product Code 1686
Date of issue 06/16/06 **Supersedes** 12/09/04

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

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

Printing date: 06/07/06

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
SULFURIC ACID; oil of vitriol	7664-93-9	>90	OSHA PEL (United States). TWA: 1 mg/m ³ 8 hour(s). Form: Mist ACGIH TLV (United States). TWA: 0.2 mg/m ³ 8 hour(s).

Section 3. Hazards Identification

Acute Effects

Routes of Entry Dermal contact. Eye contact. Inhalation.
 Ingestion.

- Skin** Causes skin burns. Skin contact can produce inflammation and blistering.
- Eyes** Causes eye burns. Eye exposure may cause severe and permanent eye injury (blindness).
- Inhalation** DO NOT breathe vapors or spray mist. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
- Ingestion** Extremely hazardous in case of ingestion. May be fatal if swallowed. May cause burns to mouth, throat and stomach.

HMIS

Health	3
Fire Hazard	0
Reactivity	2
Personal Protection	X

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.

Carcinogenic Effects

Classified 1 (Proven for human.) by IARC [Sulfuric Acid]. -Mists.

Chronic Effects

The substance may be toxic to upper respiratory tract, skin, eyes, teeth. Repeated or prolonged exposure to the substance can produce target organs damage. 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. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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. Wash clothing before reuse. Thoroughly clean shoes 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. Get medical attention immediately.

Ingestion

If swallowed, 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	Not applicable.		
Fire Hazard	Reacts with water, producing toxic and corrosive fumes. In certain fire conditions, traces of other toxic gases may be emitted.		
Fire-Fighting Procedures	Cool containers with flooding amounts of water from as far a distance as possible. Wear special protective clothing and positive pressure, self-contained breathing apparatus. 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). 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.
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Section 7. Handling and Storage

Handling	Do not get in eyes, on skin, or on clothing. Do not breathe gas/fumes/ vapor/spray. Use only with adequate ventilation. Do not ingest. Do not use with other products. Do not reuse product container. Wash contaminated clothing before reusing. Wash thoroughly after handling. Observe label precautions.
Storage	Keep container tightly closed and dry. Keep container in a cool, well-ventilated area. Store between 40°F - 120°F (4.4°C - 49°C). Keep away from incompatibles. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

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

Eyes	Splash goggles. Face shield. It is generally recognized that contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury.	Protective Clothing (Pictograms) 
Body	Wear appropriate protective clothing to prevent skin contact. Nitrile gloves. Neoprene gloves. Rubber gloves. Chemical resistant apron. Chemical resistant boots	
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. Wear appropriate respirator when ventilation is inadequate.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Oily liquid.)	Color	Pink. (Light.)
pH	< 1 Acidic.	Odor	Pungent. Acid.
Boiling Point	287.8°C (550°F)	Vapor Pressure	0.1 kPa (1 mmHg) (at 20°C)
Specific Gravity	1.82 (Water = 1)	Vapor Density	Not determined.
Solubility	Easily soluble in cold water.	Evaporation Rate	Not determined.
		VOC (Consumer)	0 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive with oxidizing agents, metals, alkalis. Do not use with other products.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	Hydrogen gas and sulfur oxides (SO ₂ , SO ₃ ...)

Section 11. Toxicological Information

Toxicity to Animals	Sulfuric Acid:
	ORAL (LD50): Acute: 2140 mg/kg [Rat].

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.)
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Consult your local or regional authorities.

Section 14. Transport Information**Proper shipping name** Sulfuric Acid**DOT Classification** DOT Class 8: Corrosive liquid.**UN number** 1830

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:

Sulfuric Acid

Clean Water Act (CWA) 311: Sulfuric Acid RQ 1000 lbs. (453.6 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.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Sulfuric Acid

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.