

Material Safety Data Sheet



Zep Inc.
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1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name ZEP-A- LUME
Product use Aluminum Cleaner
Product code 1063
Date of issue 01/19/09 **Supersedes** 07/12/04

Emergency Telephone Numbers

For MSDS Information:

Compliance Services 1-877-I-BUY-ZEP (428-9937)

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
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Atlanta, GA 30318

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Section 2. Hazards Identification

Emergency overview

DANGER ! POISON

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



CAUSES EYE, SKIN AND MUCOUS MEMBRANE BURNS.
HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED
OR ABSORBED THROUGH SKIN.

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 contact can produce inflammation and blistering. The amount of tissue damage depends on length of contact. Contact results in immediate skin absorption which may cause hypocalcemia (calcium loss) This effect may be delayed for several hours after exposure. Severe over-exposure by absorption can result in death. Get immediate medical attention.

Inhalation

Avoid breathing vapors, spray or mists. Vapors and aerosol can produce mucous membrane, nose and throat irritation. Exposure can cause lung irritation, chest pain and edema, which may be fatal.

Ingestion

May be fatal if swallowed. May cause burns to mouth, throat and stomach. Impaired kidney function..

Chronic effects

Contains material that can cause target organ damage. Repeated or prolonged exposure to the substance can produce kidney damage. 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. Repeated skin exposure can produce local skin destruction or dermatitis. Contains material which may cause damage to the following organs: blood, kidneys, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

Carcinogenicity

Contains material which can cause cancer. Strong inorganic acid mists containing sulfuric acid

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

SULFURIC ACID; oil of vitriol	7664-93-9	10 - 20
HYDROFLUORIC ACID ; hydrogen fluoride; hydrofluoride	7664-39-3	5 - 10
PHOSPHORIC ACID	7664-38-2	<5
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	<5

Section 4. First Aid Measures

- Eye Contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.
- Skin Contact** Get medical attention immediately. Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Get immediate medical attention while applying and massaging 2.5% calcium gluconate gel, or while soaking skin with 0.13% zephiran chloride solution.
- Inhalation** Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** Get medical attention immediately. Wash out mouth with water. 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.

Section 5. Fire Fighting Measures

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



- Flash Point** None.
- Flammable Limits** Not applicable.
- 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. Fire-fighters should wear appropriate protective equipment. 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.

Section 7. Handling and Storage

- Handling** Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Empty containers retain product residue and can be hazardous. Do not reuse container. Wash thoroughly after handling. Observe label precautions.
- 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. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Keep out of the reach of children.

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

SULFURIC ACID; oil of vitriol

Exposure limits**OSHA PEL (United States).**TWA: 1 mg/m³ 8 hour(s). Form: Mist**ACGIH TLV (United States).**TWA: 0.2 mg/m³ 8 hour(s).

HYDROFLUORIC ACID ; hydrogen fluoride; hydrofluoride

ACGIH TLV (United States).

TWA: 0.5 ppm 8 hour(s).

CEIL: 2 ppm

OSHA PEL (United States).

TWA: 3 ppm 8 hour(s).

ACGIH/OSHA (United States).

STEL: 6 ppm 15 minute(s).

PHOSPHORIC ACID

ACGIH / OSHA (United States).TWA: 1 mg/m³ 8 hour(s).**ACGIH TLV (United States).**STEL: 3 mg/m³ 15 minute(s).

ETHYLENE GLYCOL MONOBUTYL ETHER; 2-

butoxyethanol; butyl cellosolve

ACGIH TLV (United States). Skin

TWA: 20 ppm 8 hour(s). Form:

OSHA PEL (United States). Skin

TWA: 50 ppm 8 hour(s). Form:

Personal Protective Equipment (PPE)

- Eyes** Splash goggles. Face shield.
- Body** Wear appropriate protective clothing to prevent skin contact. Impervious gloves. Chemical resistant boots. Chemical-resistant protective suit.



Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Wear appropriate respirator when ventilation is inadequate.

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Clear. Colorless.
pH	< 1.0	Odor	Sour. Acid. [Strong]
Boiling Point	104.44°C (220°F)	Vapor Pressure	Not determined.
Specific Gravity	1.12	Vapor Density	Not determined.
Solubility	Easily soluble in the following materials: cold water and hot water.	Evaporation Rate	1 (Water = 1)
		VOC (Consumer)	55 (g/l). (4.9%)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: oxidizing materials and alkalis.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	May emit toxic fumes under fire conditions. Hydrogen fluoride (HF). sulfur oxides (SO ₂ , SO ₃ etc.)

Section 11. Toxicological Information

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sulfuric Acid	LD50 Oral	Rat	2140 mg/kg	-
	LC50 Inhalation Vapor	Rat	255 mg/m ³	4 hours
	LC50 Inhalation Vapor	Mouse	160 mg/m ³	4 hours
Hydrofluoric acid	LC50 Inhalation Vapor	Rat	1276 ppm	1 hours
	LD50 Dermal	Rabbit	>3160 mg/kg	-
Phosphoric Acid	LD50 Oral	Rat	4400 mg/kg	-
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
Ethylene Glycol Monobutyl Ether	LD50 Oral	Guinea pig	1200 mg/kg	-
	LD50 Oral	Guinea pig	1200 mg/kg	-
	LC50 Inhalation Vapor	Guinea pig	>633 ppm	1 hours

Section 12. Ecological Information

Environmental Effects Do not contaminate water by cleaning of equipment or disposal of wastes.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Phosphoric Acid	-	Acute LC50 138 mg/L	Fish	96 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: - [Corrosive. Hazardous waste.]
Origin: - [Hazardous waste Regulation]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	2922	Corrosive liquids, poisonous, n.o.s. (Hydrofluoric acid, Sulfuric Acid)	8 (6.1)	III	
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:

Product name

Hydrofluoric acid

Ethylene Glycol Monobutyl Ether

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Sulfuric Acid; Hydrofluoric acid; Phosphoric Acid

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**

WARNING: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.:
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.

*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.