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512-668-9918

Buy Aluminum Metal Etchant online

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and company/undertaking

#### 1.1 Product identifiers

Product name: Aluminum Metal Etchant

CAS number: See section 3

Synonyms: None

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Not available

#### 1.3 Details of the supplier of the safety data sheet

Company

Lab Alley, LLC

12501 Pauls Valley Road, Suite A,  
Austin, TX 78737 U.S.A

Telephone 512-668-9918

Fax 512-886-4008

#### 1.4 Emergency telephone

**Emergency Phone #** US & Canada: 1-800-535-5053 INFOTRACK

International 1-352-323-3500 INFOTRACK

## SECTION 2: Hazards identification

### Hazard Statements

H290 Corrosive to Metals: Category 1

H303 Acute toxicity Oral : Category 5

H313 Acute toxicity Dermal: Category 5

H331 Acute toxicity Inhalation : Category 3

H314 Skin corrosion / Skin irritation : Category 1

H318 Serious eye damage / Eye irritation : Category 1

H371 Special target organ systemic toxicity single exposure: Category 2

H373 Special target organ systemic toxicity repeated exposure : Category 2

### Pictogram



**Signal word:** Danger

### Hazard Statement

May be corrosive to metals Harmful if swallowed or in contact with skin. Toxic if mist is inhaled. Causes severe skin burns and serious eye damage. Health hazard. May cause damage to lungs, eyes, and mucous membranes through prolonged or repeated exposure.

### Precautionary Statements

P234 Keep only in original container.

P260 Do not breathe dusts or mist.

P261 Avoid breathing fumes, mist, or vapors.

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves and eye protection.

P301 + P330 + P331 If swallowed rinse mouth. Do not induce vomiting,

P303 + P361 + P353 If on skin take off immediately all contaminated clothing. Rinse skin

with water.

P304 + P340 If inhaled remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue using.

P308 + P311 Seek medical assistance if not breathing. If exposed or concerned, call a physician.

P312 Call a physician if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P363 Wash contaminated clothes before reuse.

P390 Absorb spillage to prevent material damage.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant container.

P501 Dispose of content/container in accordance with local/regional/national/international regulations.

### SECTION 3: Composition/information on ingredients

Chemical name	Common name	CAS number	Concentration by weight
Nitric Acid		7697-37-2	1-5%
Phosphoric Acid		7664-38-2	50-70%
Acetic Acid		64-19-7	3-10%
Water		7732-18-5	15-46%
Surfactant		Proprietary	<0.1%

### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

Eye Contact: Corrosive to naked eye; in case of contact flush eyes well for 15 minutes, lifting the lower and upper eyelids occasionally. May cause blindness. Seek medical attention.

Skin Contact: Obtain medical attention: Corrosive to exposed skin. Flush skin well with water for 15 minutes, wash with soap and water. Remove affected clothing, get medical attention.

Inhalation: If mist or fumes are inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Effects may be delayed. May cause chemical burns to the respiratory tract.

Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal burns and preformation of the digestive tract. Get medical attention immediately.

### **SECTION 5: Firefighting measures**

Extinguishing media: Water spray or fog, carbon dioxide and dry chemical. Do not use organic media.

Special fire fighting procedures: Wear chemically retardant gear and NIOSH approved self-contained breathing apparatus. Thermal decomposition produces irritating and toxic fumes. Contact with oxidizing reagents may cause extremely violent combustion.

### **SECTION 6: Accidental release measures**

SPILLS, LEAKS: Ventilate area of leak or spill. Clean up personnel should wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with absorbent, non-combustible material such as earth, sand, or vermiculite.

### **SECTION 7: Handling and storage**

#### **Precautions for safe handling**

Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Do not breathe dust, mist, or vapor. Do not expose eyes, skin, or clothing. Keep container closed tightly. Avoid contact with combustibles. Do not use with metal tools or items. Use with adequate ventilation or respiratory protection. Do not store near combustibles or in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances. Separate from metals, alkali, and organics.

### **SECTION 8. Exposure controls/personal protection**

Respiratory protection: Wear NIOSH/MESA approved full or half face piece (with goggles) respiratory protective equipment to avoid exposure to vapors. A respiratory protection program complying with requirements of 29CFR 1910.134 is recommended.

Ventilation: Where adequate ventilation is not available, use NIOSH approved vapor respirator with dust, fume and mist filters. Local ventilation through fume hoods or laminar flow stations is also preferred. Keep fumes away from strong bases.

Protective gloves: Skin contact should be minimized through use of rubber gloves.

Other protective equipment: Steel tipped shoes/eye wash station/chemical safety chemical retardant clothing.

Eye protection: Safety goggles / face shield

### **SECTION 9: Physical and chemical properties**

Form : Syrupy liquid

Appearance : Colorless

Odor : Vinegar

pH : < 2

Melting point: Not available

Boiling point/Boiling range : 100 oC (water)

Flash point : Non-flammable.

Ignition point : Will not ignite.

Danger of explosion: Product is not explosive

Decomposition temperature: > 150 degree C

Vapor density (Air = 1) : Not available

Volatiles, g/L: 750-850

Vapor pressure at 15o C, mm Hg: 51 mm Hg at 25 degree C

Specific gravity : 1.45 g/cc

Solubility in / Miscibility: Completely miscible in water

Evap. Rate (Water = 1): < 1

## SECTION 10: Stability and reactivity

### Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

### Possibility of Hazardous Reactions

Data not available.

### Conditions to Avoid and Incompatible Materials

Excess heat, damp, light, confined spaces

Metals/metal powders, reducing agents, strong bases, acetic acid, alcohol, acetone, aniline, hydrogen sulfide, carbides, organic solvents, combustibles, chromic acid, flammables, cyanides, sulfides.

### Hazardous Decomposition Products

Nitrogen oxides, phosphorous oxides, organic fumes

## SECTION 11: Toxicological information

ACUTE:

LC50 (Inhalation, rat): 1.35 mg/L/4 h (nitrogen dioxide) (anhydrous substance)

LD50 (oral, rat): 1530 mg/kg (phosphoric acid)

LDLo (oral, human): 4500 mg/kg (anhydrous substance) (IUCLID)

Specific symptoms in animal studies: burns to eyes (rabbit), burns to skin (rabbit)

#### SUBACUTE TO CHRONIC TOXICITY:

Bacterial mutagenicity: Ames test: negative

Investigated as a mutagen

#### OTHER DATA:

Corrosive. Vapor inhalation burns mucous membranes; causes coughing, dyspnoea. Inhalation may lead to oedemas in the respiratory tract. Burns skin, eyes (risk of blindness). Swallowing results in damage to mouth esophagus, and gastrointestinal tract; risk of perforation; bloody vomiting; death.

### SECTION 12. Ecological information

Bioaccumulation : There is no evidence of bioaccumulation.

Environmental Fate: When released into the soil, this material may leach into groundwater. When released to water, acidity may be readily reduced by natural water hardness minerals, but the phosphate may persist indefinitely.

Ecotoxicity : Biologic effects:

Toxic effect on fish and plankton. Harmful effect due to pH shift. Forms corrosive mixtures with water even when diluted. Does not cause biological oxygen deficit. Hazardous to drinking water supplies.

Fish toxicity: *Gambusia affinis* LC50: 756 mg/L/96 h

Hazard for drinking water: Fish: LC50 > 1500 mg/L.

### SECTION 13. Disposal considerations

#### 13.1 Waste Disposal Method

DISPOSAL: Dispose of in accordance with all federal state and local regulations. Send waste to an approved waste disposal facility.

### SECTION 14: Transport information

#### DOT(US)

Class 8

PG II

UN3264

Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid and Nitric Acid)

## SECTION 15: Regulatory information

Symbol: C, Corrosive

R-Phrase:

R: Contact with combustible material may cause fire.

R21/22: Harmful in contact with skin and if swallowed.

R35: Causes severe burns.

R41: Risk of serious damage to eyes.

S-Phrases:

S17: Keep away from combustible material.

S23-36/37/39-45 Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

The following component of this product is regulated as toxic a chemical under section 313 or Title III SARA, and 40CFR 372:

Nitric Acid CAS# 7697-37-2

### **Other International Regulations**

Not available

## SECTION 16: Other information

NFPA Codes:

Health: 3

Flammability: 0

Reactivity: 1

R8: Contact with combustible material may cause fire.

R35: Causes severe burns.

All ingredients of this product are listed on the US TSCA inventory under their parent. anhydrous compounds.

Date of issue: 04/23/2024

## **SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.