

# Safety Data Sheet

## Electropolish Solution

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Electropolish Solution

**Synonyms/Generic Names:** None

**Product Number:** 3620

**Product Use:** Industrial

**Manufacturer:** Lab Alley, LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669

**For More Information Call:** 512-668-9918

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Target organ effect, Highly toxic by inhalation, Corrosive, Harmful by ingestion

**Target Organs:** Teeth, Lungs, Liver, Blood, Bone marrow

**Signal Words:** Danger

**Pictograms:**



**GHS Classification:**

Acute toxicity, Oral	Category 5
Skin corrosion	Category 1B
Eye damage	Category 1
Respiratory sensitizer	Category 1
Target organ toxicity	Category 3
Acute toxicity, Inhalation	Category 3
Acute toxicity, Dermal	Category 5

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H314	Causes severe skin burns and eye damage
H330	Fatal if inhaled
H402	Harmful to aquatic life
H371	May cause damage to organs
H302	Harmful if swallowed
H313	May be harmful in contact with skin.

**Precautionary Statements:**

P260	Do not breathe dust/gas/fume/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301+P361+P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

**Potential Health Effects**

<b>Eyes</b>	Causes eye burns.
<b>Inhalation</b>	May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin burns.
<b>Ingestion</b>	May be harmful if swallowed.

**NFPA Ratings**

<b>Health</b>	3
<b>Flammability</b>	0
<b>Reactivity</b>	3
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	3
<b>Fire</b>	0
<b>Reactivity</b>	2
<b>Personal</b>	J

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Sulfuric Acid	40	7664-93-9	432-639-5	H <sub>2</sub> SO <sub>4</sub>	98.08 g/mol
Phosphoric Acid	47	64-19-7	231-633-2	H <sub>3</sub> PO <sub>4</sub>	98.00 g/mol
Water	Balance	7732-18-5	231-791-2	H <sub>2</sub> O	18.00 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Immediately rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

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## 5. FIREFIGHTING MEASURES

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<b>Suitable (and unsuitable) extinguishing media</b>	Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (oxides of sulfur, phosphorous oxides, hydrogen chloride gas) under fire conditions. (See also Stability and Reactivity section).

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Neutralize spill. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Occupational Exposure Controls:

Component	Exposure Limits	Basis	Entity
Sulfuric Acid	0.2 mg/m <sup>3</sup>	TLV	ACGIH
	1 mg/m <sup>3</sup>	PEL	OSHA
	5 ppm 7 mg/m <sup>3</sup>	CEIL	NIOSH
Phosphoric Acid	1 mg/m <sup>3</sup>	TLV	ACGIH

	3 mg/m <sup>3</sup>	STEL	ACGIH
	1 mg/m <sup>3</sup>	PEL	OSHA
	1 mg/m <sup>3</sup>	REL	NIOSH
	3 mg/m <sup>3</sup>	STEL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles, and face shield.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Other</b>	Not Available.

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear colorless liquid
Odor	Caustic
Odor threshold	Not Available
pH	1
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Relative density	1.7797 (water = 1)
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Fire, uncontrolled addition of water
<b>Incompatible Materials</b>	Moisture, heat, bases, halides, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides.
<b>Hazardous Decomposition Products</b>	Oxides of sulfur, phosphorous oxides, hydrogen chloride gas.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

#### *Sulfuric Acid*

<b>Skin</b>	Not Available
<b>Eyes</b>	Not Available
<b>Respiratory</b>	LC50 Inhalation – rat – 2 h – 510 mg/m <sup>3</sup>
<b>Ingestion</b>	LD50 Oral – rat – 2140 mg/kg


#### *Phosphoric Acid*

<b>Skin</b>	Not Available
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	Not Available

### Carcinogenicity

<b>IARC</b>	3: Not classifiable as to its carcinogenicity to humans (Hydrogen chloride) 1: Carcinogenic to humans (Sulfuric acid)
<b>ACGIH</b>	A4: Not classifiable as a human carcinogen. (Hydrogen chloride) A2: Suspected human carcinogen (Sulfuric Acid)
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Severe irritating, burning. Material is extremely destructive to skin.
<b>Eyes</b>	Severe irritating, burning. Material is extremely destructive to eyes.
<b>Respiratory</b>	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.
<b>Ingestion</b>	Severe irritation, burning. Material is extremely destructive to esophagus and digestive tract.

<b>Chronic Toxicity</b>	May cause bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel.
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

#### *Sulfuric Acid*

<b>Aquatic Vertebrate</b>	LC50 – <i>Gambusia affinis</i> (Mosquito fish) – 282 mg/l – 96h
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available


#### *Phosphoric Acid*

<b>Aquatic Vertebrate</b>	Not Available
<b>Aquatic Invertebrate</b>	Not Available
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product containers.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORT INFORMATION

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US DOT	UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (sulfuric acid, phosphoric acid), 8, (5.1) pg II
TDG	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (SULFURIC ACID, PHOSPHORIC ACID), 8, (5.1) PG II
IMDG	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (SULFURIC ACID, PHOSPHORIC ACID), 8, (5.1) PG II
Marine Pollutant	No
IATA/ICAO	UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (sulfuric acid, phosphoric acid), 8, (5.1) pg II

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	No
SARA 302	Listed: Sulfuric Acid
SARA 304	Listed: Sulfuric Acid
SARA 311	Acute Health Hazard, Reactivity Hazard
SARA 312	Acute Health Hazard, Reactivity Hazard
SARA 313	Listed: Sulfuric Acid, and Hydrochloric Acid
WHMIS Canada	Class E: Corrosive material. Class D-1A: Material causing other toxic effects (VERY TOXIC).

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## 16. OTHER INFORMATION

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Revision	Date
Revision 1	07-06-2011
Revision 2	10/03/2018

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