

## Sulfuric Acid Methanol Electropolish

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Sulfuric Acid Methanol Electropolish

**Synonyms/Generic Names:** None

**Product Number:** 5729

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**Hazard Not Otherwise Classified (HNOC):** None

**Specific Target Organ Toxicity (STOT):** Single exposure

**Signal Word:** Danger

**Pictograms:**



**GHS Classification:**

Flammable liquid	Category 2
Acute toxicity, Oral	Category 4
Acute toxicity, Inhalation	Category 4
Skin corrosion	Category 1A
Serious eye damage	Category 1
Specific target organ toxicity-single exposure	Category 1

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

**Hazard Statements:**

H225	Highly flammable liquid and vapor.
H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H370	Causes damage to organs.

**Precautionary Statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands 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/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 rinsing.
P310	Immediately call a POISON CENTER/doctor/physician.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

**Potential Health Effects**

<b>Eyes</b>	Causes severe eye burns.
<b>Inhalation</b>	Harmful 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>	Harmful if swallowed.

**NFPA Ratings**

<b>Health</b>	3
<b>Flammability</b>	3
<b>Reactivity</b>	1
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	3
<b>Fire</b>	3
<b>Reactivity</b>	1

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Sulfuric Acid	20-30	7664-93-9	231-639-5	H <sub>2</sub> SO <sub>4</sub>	98.08 g/mol
Methanol	70-80	67-56-1	200-659-6	CH <sub>4</sub> O	32.04 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.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable (and unsuitable) extinguishing media</b>	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use appropriate media for adjacent fire. Cool unopened containers with water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (carbon oxides, sulfur oxides) under fire conditions. (See also Stability and Reactivity section).

## 6. ACCIDENTAL RELEASE MEASURES

<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 federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Neutralize spill. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

## 7. HANDLING AND STORAGE

### 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. Avoid formation of aerosols. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational exposure controls:** Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Sulfuric Acid	0.2 mg/m <sup>3</sup>	TLV	ACGIH
	1 mg/m <sup>3</sup>	PEL	OSHA
	1 mg/m <sup>3</sup>	REL	NIOSH

	15 mg/m <sup>3</sup>	IDLH	OSHA
Methyl Alcohol	200 ppm 262 mg/m <sup>3</sup>	TLV	ACGIH
	250 ppm 328 mg/m <sup>3</sup>	STEL	ACGIH
	200 ppm 260 mg/m <sup>3</sup>	PEL	OSHA
	200 ppm 260 mg/m <sup>3</sup>	REL	NIOSH
	250 ppm 325 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 with face shield if splashing likely to occur.
<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, flame retardant antistatic protective clothing. 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear liquid.
Odor	Not Available
Odor threshold	Not Available
pH	<1
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	14-16°C (57-61°F)
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable liquid
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Specific gravity	1.0048
Solubility (ies)	Not Available
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>	Heat, flames, sparks. Extremes of temperature and direct sunlight.
<b>Incompatible Materials</b>	Acid chlorides, acid anhydrides, oxidizing agents, alkali metals, reducing agents, acids, metals, acrylonitrile, halides.
<b>Hazardous Decomposition Products</b>	Carbon oxides, sulfur oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Skin</b>	LD50 Oral – rabbit – >5,000 mg/kg (calculated)
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	LD50 Oral – rat – 3,999 mg/kg (calculated)

### Carcinogenicity

<b>IARC</b>	1-Group 1: Carcinogenic to humans (Sulfuric acid in inorganic acid mist form).
<b>ACGIH</b>	A2: Suspected human carcinogen (Sulfuric acid in inorganic acid mist form).
<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>	Burning, itching, redness, inflammation upon exposed tissue.
<b>Eyes</b>	Eye burns, watering eyes, redness.
<b>Respiratory</b>	Burning, choking, coughing, shortness of breath, disorientation, dizziness, fatigue, nausea.
<b>Ingestion</b>	Nausea, vomiting, diarrhea, burning, severe pain, may cause blindness or central nervous system depression.

<b>Chronic Toxicity</b>	Ingestion may cause blindness (methanol).
<b>Teratogenicity</b>	No
<b>Mutagenicity</b>	No
<b>Embryotoxicity</b>	No
<b>Target Organ(s)</b>	Single exposure- Causes damage to organs.
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

<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

### 13. DISPOSAL CONSIDERATIONS

<b>Waste Product or 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 residue.
<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 container.

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.

### 14. TRANSPORTATION INFORMATION

US DOT	UN2924, Flammable liquids, corrosive, n.o.s. (methanol and sulfuric acid), 3, (8), PG II
TDG	UN2924, FLAMMABLE LIQUIDS, CORROSIVE, N.O.S. (METHANOL AND SULFURIC ACID), 3, (8), PG II
IMDG	UN2924, FLAMMABLE LIQUIDS, CORROSIVE, N.O.S. (METHANOL AND SULFURIC ACID), 3, (8), PG II
Marine Pollutant	No
IATA/ICAO	UN2924, Flammable liquids, corrosive, n.o.s. (methanol and sulfuric acid), 3, (8), PG II

### 15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Listed: Methanol
Rhode Island: Hazardous Substance List	Listed: Sulfuric Acid, Methanol
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Methanol
Pennsylvania: Hazardous Substance List	Listed: Sulfuric Acid, Methanol
New Jersey: Right to Know Hazardous Substance List	Listed: Sulfuric Acid, Methanol
SARA 302	Listed: Sulfuric Acid
SARA 304	Listed: Sulfuric Acid
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313	Listed: Sulfuric Acid (aerosol forms only)
WHMIS Canada	Class B2: Flammable and combustible material – Flammable liquid. Class D1A: Poisonous and infectious material – Immediate and serious effects – Very toxic. Class D1B: Poisonous and infectious material – Immediate and serious effects – Toxic. Class D2A: Poisonous and infectious material – Other effects – Very toxic.

	Class D2B: Poisonous and infectious material – Other effects – Toxic. Class E: Corrosive material.
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## 16. OTHER INFORMATION

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Revision	Date
Original	08/15/2014
Revision 1	07/18/2017
Revision 2	07/21/2020
Revision 3	12/13/2021
Revision 4	01/10/2023
Revision 5	01/16/2025

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