



## SS Electropolish E972

### Electropolishing Electrolyte for Stainless Steel

**DESCRIPTION:** SS Electropolish E972 is a very mild electrolyte for electropolishing stainless steel. Is effective on 300 series stainless and some 400 series, high grade stainless's.

SS Electropolish is a very mild alternative to other electropolishing solutions for stainless steel and has a low % acidity of less than 30%

#### PROPERTIES:

Appearance	Clear, slightly amber
Odor Threshold	N/A
Vapor Pressure	<0.10 mm Hg
Specific Vapor Density	2.20 Air=1
Specific Gravity	1.3 – 1.5
Evaporation Rate	Slower than Ether
Boiling Point	199°C
Freezing Point	below 0°C
PH	Acidic
Shelf Life	Two years from date of manufacture

#### PRECAUTIONS:

Acidic solution, may cause eye and skin irritation. Avoid contact with skin, eyes, clothing. Wear goggles or safety glasses. Wash thoroughly after handling. Use in conjunction with proper ventilation. If spilled, will damage clothing, carpet, benches, tools, etc. Keep out of reach of children. For additional information, refer to MSDS.



ESMA Incorporated  
450 Taft Drive  
South Holland, IL 60473  
800-276-2466

## MATERIAL SAFETY DATA SHEET

### Section 1- Product Identification and Use

Product Identifier—Stainless Steel Electropolish

Product Identification Number—E972

Product Use—Electropolishing Solution

Manufacturer's Name—Esma, Inc.

450 W. Taft Drive

South Holland, IL 60473

1-800-246-2466

Emergency Telephone Numbers— US/North America: Chemtrec 800-262-8200 24 hrs everyday

International: Chemtrec 703-527-3887

### Section 2 - Hazardous Components

Hazardous Ingredients	%	CAS Number	LD <sub>50</sub>	LC <sub>50</sub>
Ethylene Glycol	50	107-21-1	5.89 g/kg (Oral Rat)	10.9 g/kg (Inhalation Rat)
Glycol Sulfa Ester	50		N/A	N/A

### Section 3 - Physical Data

Physical State—Liquid

Odor Threshold—N/A

Specific Vapor Density—2.20 Air=1

Evaporation Rate—Slower than Ether

Freezing Point—below 0 degrees C

Coeff. Water/Oil Dist.—N/A

Odor and Appearance—Clear, slightly amber

Vapor Pressure—<0.10 mm Hg

Specific Gravity—1.38

Boiling Point—199 degrees C

PH—Acidic

### Section 4 - Fire and Explosion Data

Flammability—No

Flash Point—111.1 degrees C (TCC)

Explosive Limit (% by Volume)—Lower-3.2%, Upper-15.3%

Auto Ignition Temp.—N/A

Hazardous Combustion Products (may form)

—Carbon Dioxide, Carbon Monoxide, Acid Vapors

Explosion Data—Sensitivity to Impact—N/A

Sensitivity to Static Discharge—N/A

### Section 5 - Reactivity Data

Chemical Stability—Stable

Incompatibility—Organic and Inorganic Chemicals

Reactivity—Strong Oxidizers

Hazardous Decomposition Products (may form)

--Carbon Dioxide, Carbon Monoxide, Toxic Vapors

### Section 6 - Toxicological Properties

Route of Entry—Eyes, Skin/Skin Absorption, Breathing, Swallowing

Effects of Acute Overexposure—

Eyes—May cause severe damage and even blindness

Skin—Skin absorption is possible, exposure may cause irritation and possible ulceration.

Breathing—Fumes can cause irritation and damage to nasal/respiratory passages.

Swallowing—Can result in damage to mucous membranes and deep tissues.

Effects of Chronic Exposure—Chronic irritation of the eyes and chronic inflammation of nose, throat, and lungs.

## Section 6 - Toxicological Prop. (cont'd)

Exposure Limits—OSHA VPEL 50.000 ppm-ceiling  
 ACGIH TLV 50.000 ppm-ceiling vapor and mist  
 Irritancy of Product—Skin, Eyes, Nose, and Throat  
 Sensitization to Product—N/A Carcinogenicity—NO  
 Teratogenicity—N/A Reproductive Toxicity—NO  
 Mutagenicity—NO Synergistic Products—N/A

## Section 7 - Preventive Measures

Personal Protective Equipment—  
 Gloves—Rubber, Neoprene Respirator—Chemical Cartridge  
 Eyes—Chemical Splash Goggles Clothing—Lab Coat  
 Engineering Controls—Mechanical Ventilation Sufficient  
 Leak and Spill Procedure—Cover the contaminated surface with sodium bicarbonate or a soda ash/slaked lime mixture (50/50). Collect for disposal, wash site with soda ash/water solution  
 Waste Disposal—Dispose according to federal, provincial/state, and local regulations  
 Handling Procedures—Persons must wear proper personal protective equipment.  
 Storage Requirements—Store away from incompatible materials.  
 Special Shipping Information—  
 DOT Information—49CFR172.101  
 -DOT Description—  
 --Corrosive liquid, acidic, organic, N.O.S., 8, UN3265, 111  
 -Labeling Exceptions for Class 8—49CFR173.154  
 --Each package may not exceed 30 kg (66 pounds)  
 --Inner packaging not over 4.0 L (1 gallon)

## Section 8 - First Aid Measures

Skin—Immediately flush exposed area with running water for at least 15 minutes; if ulceration, get medical help; remove contaminated clothing and launder prior to reuse; discard contaminated shoes.

Eyes—Immediately flush with large amounts of running water for at least 15 minutes, lifting upper and lower lids. Get immediate medical attention; if physician unavailable continue flushing with water; do not use chemical antidote.

Swallowing—Dilute by drinking water and milk of magnesia, then induce vomiting; never give anything orally to unconscious person; get immediate medical help.

Breathed—Move individual to fresh air; if breathing difficult administer oxygen; if breathing has stopped, give artificial respiration; keep person warm, quiet, and get immediate medical help.

NOTE TO PHYSICIANS—This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning, since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, use three to four 1-ounce oral “shots” of 86-proof or higher whiskey before or during transport to the hospital. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

## Section 9 - Preparation Date of MSDS

Prepared by—Tim Beezhold Op/Mgr  
 708-331-1855  
 May 25, 2004