

MATERIAL SAFETY DATA SHEET

Section 1- Product Identification and Use

Product Name: E6040 Stainless Steel Electropolishing Solution

Product Identification Number: E6040

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: 800-276-2466

Section 2 - Hazardous Identification

Form : Liquid Color : Clear, colorless to straw yellow

Emergency Overview : Solutions are eye and skin irritants, and prolonged or repeated contact may cause irritation. Mists are irritating to the skin, mucous membranes, and upper respiratory tract. Read the entire SDS for a more thorough evaluation of the hazards.

OSHA Hazard Communication Standard : This product has been evaluated and classified as defined by OSHA Hazard Communication Standard, 29CFR 1910.1200.

GHS Classification :

Eye Irritation (Category 1A Irritant)

Skin Irritation (Category 1 Irritant)

Label Elements :

Signal Word : Warning

GHS Hazard Pictograms : Exclamation Mark

Hazard Statements :

H303 May be harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary Statements :

P102 Keep out of reach of children.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P281 Use personal protective equipment as required.

P301+ 312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P304 + 312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. IF eye irritation persists: Get medical advice/attention.

P302 + 351 IF ON SKIN Rinse cautiously with water for several minutes.

P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

Other hazards which do not result in classification :

None known. See Section 11 for Potential Health Hazards



Section 3 - Hazardous Ingredients

Ingredient	CAS#	%	RECOMMENDED EXPOSURE AND TOXICITY LIMITS
PHOSPHORIC ACID	7664-38-2	50	ACGIH (TLV) – OSHA (PEL): 1 MG/M3 (TWA) 3 MG/M3 (STEL) LD50: 1530 MG/KE ORAL (RAT) DERMAL (RABIT)
SULFURIC ACID	7664-93-9	50	1 MG/M3 8 HOUR TWA (OSHA) 1 MG/M3 8 HOUR TWA (ACGIH) 3 MG/M3 15 MIN STEL (ACGIH)

Section 4 - First Aid Measures

Eye Contact: Immediately flush contacted area repeatedly with water for at least 15 minutes, holding eyelids open. Contact a physician for treatment.

Skin Contact: Immediately flush contacted area repeatedly with water for at least 15 minutes. If irritation persists, contact a physician for treatment. Clean contaminated clothing before reuse.

Inhalation: Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs, remove victim to fresh air. If irritation persists, seek medical attention.

Ingestion: Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give 1-2 glasses of water to drink, if conscious and alert.

Notes to physician : treat symptomatically. No specific antidote available. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

Flash point: NONE

Autoignition temperature: N/A

Flammability limits: None

Extinguishing media: Do not use solid water streams. Water applied directly may result in heat evolution or may liberate harmful gases, vapor, or mist. Use water spray or suitable agent: (co2, dry chemical or foam) extinguisher.

Special firefighting procedures: fire fighting procedure: firefighters should be equipped with niosh approved fully enclosed self contained breathing apparatus with plastic window in the hood and full protective equipment and clothing.

Fire and explosive hazards: this product may react with aluminium, zinc, tin and their alloys to produce flammable hydrogen gas. Will react violently with water. Heat may explode containers

Section 6 - Accidental Release Measures

(Steps to be taken if material is spilled or released)

Only allow trained personnel, wearing appropriate safety equipment to clean up spilling dike spill dilute with water fog neutralize with lime. Transfer into clean dry approved container. On major spills notify local police health and other concerned authorities.

Waste disposal method:

Send to waste disposal site in accordance with local, state, and federal law.

Sara section 313 chemicals: sulfuric acid.

Section 7 - Handling And Storage

Proper storage: Store in a properly identified flammables storage area that is cool, dry, and properly ventilated. Store away from heat, flame, sparks, and other ignition sources. Store separately from oxidizing and other incompatible materials.

Precautionary methods: Avoid contact with skin or inhalation of fumes. Wash thoroughly after handling. Wear NIOSH-approved mask and suitable protective equipment during handling and usage.

Disposal: Dispose of with flammable liquid waste in accordance with all federal, state, and local regulations.

Section 8 - Exposure Controls/Personal Protection

Special precautions: Irritating and dizzying fumes may be released when product is used. This product may be used in tandem with other hazardous chemicals. Exposure controls must consider all of the potential hazards of the operation.

Ventilation: Use only with ventilation that maintains airborne concentrations below the OSHA PEL. Ventilation must also be sufficient for other chemicals present in the plant.

Respiratory protection: Wear NIOSH-approved respirator when handling or working with. Fumes from this product contain hazardous chemicals and can be highly irritating.

Skin protection: Chemical-resistant rubber gloves and suitable protective clothing should be worn. Butyl or natural rubber or neoprene are recommended.

Eye protection: Face mask or safety goggles should be worn when handling and when working with this product or its prepared solutions.

Personal hygiene: Wash thoroughly after any handling or usage. Because mists from working area may be on skin and clothes, removal of clothing and showering after extended use are recommended.

Protective measures during repair and maintenance of equipment: E6040 and the products it is used with are corrosive and flammable and may cause various physical effects. This and related products should be removed to a suitable storage area and working area thoroughly cleaned and ventilated before any repair or maintenance.

Section 9 - Physical And Chemical Properties

Appearance:	Clear liquid	Odor:	Acidic odor
Boiling point:	212°F	Vapor pressure:	N/A
Vapor density (Air = 1):	N/A	Solubility in water:	Completely miscible
Specific gravity (Water = 1):	1.76-1.81	pH of solution:	Less than 2

Section 10 - Stability And Reactivity

Stability:	Stable
Hazardous polymerization:	Will not occur
Conditions to avoid:	Elevated temperatures; enclosed areas; flame and spark sources
Incompatible materials:	Oxidizers, strong acids and alkalis, halogenated solvents
Hazardous decomposition products:	Various carbon and sulfur oxides

SECTION 11 - TOXICOLOGY

Carcinogenicity:	Not listed by any agency.
Mutagenicity:	Not found to be a mutagenic.
Reproductive:	No data available.
Sensitization:	Not considered a sensitizer

Stability:	Stable
Hazardous polymerization:	Will not occur
Conditions to avoid:	Avoid contact with hot solutions; splashing solutions, prolonged skin contact
Incompatible materials:	Strong bases, Oxidizers
Hazardous decomposition products:	None

Section 12 - Ecological Information

Ecotoxicity

This product contains the following substance(s) which are hazardous for the environment. .

Component Freshwater Algae Freshwater Fish Microtox Water Flea

Sulfuric acid - LC50: > 500 mg/L, 96h static (Brachydanio rerio)- EC50: 29 mg/L/24h

Persistence and Degradability: No information available

Bioaccumulation/ Accumulation: No information available.

Mobility: No information available.

Section 13 - Disposal Considerations

Waste Disposal Method: Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Whatever cannot be salvaged or recycled should be handled a hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility.

Follow local, state and federal regulations for disposal

Section 14 - Transportation Information

D O T Shipping name: Corrosive Liquid, Acidic, Inorganic,N.O.S.,(Contains Sulfuric Acid,Phosphoric Acid, Acid)

Hazard Class: 8
I D Number: U N 3264
Packing Group: I I I
Label(s) required: Corrosive

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste (40 CFR 261.24): Not listed
CERCLA Hazardous substance (40 CFR 302.4) listed per CAA, Section 112
CERCLA Reportable Quantity (RQ) for ethylene glycol is 5,000 pounds.
SARA Toxic Chemical (40 CFR 372.65): Listed for ethylene glycol
SARA Extremely Hazardous Substance (40 CFR 355): Not listed

Section 16 - Other Information

The NFPA Rating : HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0
PPE = J
NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

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