

## **SECTION 1 – IDENTIFICATION AND COMPANY DETAIL**

**Product Name:** E1 Electrolyte

Product Code(s): E-MM-E1-2 and E-MM-E1-4

**Recommended Use:** For use in the Electro-Chemical Etching Process

Manufacturers Name: Ullman Devices Corp.

Address: 29 E. Madison St., Suite 900

Chicago, IL 60602

**Emergency Telephone:** (203) 438-6577, available during office hours,

8:00am - 5:00pm EST, Monday - Friday, in English.

**Fax Number:** (203) 431-9054 **Date Prepared:** 31 March 2015

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## **SECTION 2 – HAZARDS IDENTIFICATION**



**Hazardous Pictogram:** 

Signal Word: WARNING

**Precautionary Statement:** Harmful if swallowed.

Do not swallow.

Avoid Skin and Eye contact.

Inhalation: N/A

**Ingestion:** Large amounts may cause vomiting, cramps and/or diarrhea, and possibly affect blood pressure.

Skin contact: Irritant Eye contact: Irritant

This product, when used specifically as directed and for its intended purpose (i.e. mild electrolytic etching) and in conjunction with proper work procedures and policies and sound hygienic practices, does not constitute a hazard to personnel.

# SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

## Hazardous Components (specific chemical identity/ Common name):

**SOLIDS:** 

**LIQUIDS:** Surfactant (trade secret) 1%

**TRADE SECRET:** The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.



### **SECTION 4 – FIRST AID MEASURES**

**Skin contact:** Flush thoroughly with water for fifteen minutes. **Eye contact:** Flush thoroughly with water for fifteen minutes.

**Ingestion:** Induce vomiting and call physician.

Inhalation: N/A

Always seek medical attention if irritation continues.

#### **SECTION 5 – FIRE-FIGHTING MEASURES**

Suitable extinguishing media: N/A
Special fire fighting procedures: N/A
Unusual fire and explosions hazards: N/A

### **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

Steps to be taken in case material is released or spilled:

**SMALL SPILLS:** Flush with water to sewer.

**LARGE SPILLS:** Use suitable absorbent and dispose of in dot approved waste containers.

**WASTE DISPOSAL:** To be performed in compliance with all current local, state and federal regulations.

### SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in the event of spillage or chemical release:

**Waste disposal method:** To be performed in compliance with all current local, state and federal regulations. **Precautions to be taken in Handling and Storage:** Keep container tightly closed, and keep from freezing (32°F).

Wash hands thoroughly after handling.

Other Precautions: None

# SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

Occupation Exposure Limits: N/A

Personal Protective Equipment: Respiratory System: N/A

**Skin and Body:** Optional apron

**Hands:** Optional for sensitive skin, rubber gloves **Eyes:** For extra protection, wear safety goggles

Other/Special: Local exhaust sufficient

### **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Liquid



Color: Aqua
Odor: Slight odor
Odor Threshold: N/A
pH: 1.8 to 2.2
Boiling Point: 212°F

Melting / Freezing Point: Melting - N/A Freezing - below 32°F

Flash Point: N/A

Fire Hazards in presence of various substances: N

of various substances: N/A
Auto-ignition temperature: N/A
Explosive Properties: N/A
Lower explosion limit: N/A
Oxidizing properties: N/A

Vapor Pressure (mm Hg.): @25°C (77°F):23.7

**Evaporation Rate**: N/A **Density**: N/A

Solubility: Complete (100%)

Vapor Density: N/A

# **SECTION 10 – REACTIVITY DATA**

Stability: Stable Conditions to avoid: N/A

**Incompatibility:** (materials to avoid) If solution dries; oxidizers

Hazardous Decomposition or By-products: None

Hazardous polymerization: Will not occur.

# **SECTION 11 – TOXICOLOGICAL INFORMATION**

Carcinogenicity: NTP: No IARC: No OSHA: No

# Health Hazards (Acute & Chronic);

Ingestion of large amounts may cause vomiting, cramps and/or diarrhea, and possibly affect blood pressure.

## **SECTION 12 - ECOLOGICAL INFORMATION**

N/A

# **SECTION 13 – DISPOSAL CONSIDERATIONS**

Observe all federal, state and local environmental regulations.

# **SECTION 14 – TRANSPORT INFORMATION**

Special Precautions: Keep container tightly closed. Keep from freezing (32 degrees [F]).

This is a Non-Hazardous product.



### **UN Number**

US DOT (United States Department of Transportation): Not Regulated IMO/IMDG (International Maritime Dangerous Goods): Not Regulated

IATA (International Air Transport Association): Not Regulated

ADR (Agreement on Dangerous Goods by Road (Europe)): Not Regulated

RID (Regulations Concerning The International Transport of Dangerous Goods (Europe)): Not Regulated

AND (European Agreement Concerning The Carriage of dangerous Goods by Inland Waterways): Not Regulated

### **SECTION 15 - TRANSPORT INFORMATION**

**IRRITANT** 

Safety Phrases: N/A Risk Phrases: N/A Regulations: N/A

### **SECTION 16 - OTHER INFORMATION**

Source of key data used to

Compile Safety Data Sheet: Material Safety Data Sheet. Essentially similar to U.S. Department of Labor

Form OSHA-20

Issue Date: 26 February 1987
Changes to Issue: 21 February 2018

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