

# Millennium Signatures Marking Systems Inc.

Phone: 905-639-0909

Email: info@millenniumsignatures.com

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION AND COMPANY DETAIL

**Product Name:** X4R-416 Electrolyte  
**Product Code(s):** X4R-416  
**Recommended Use:** For use in the Electro-Chemical Etching Process  
**Manufacturers Name:** Millennium Signatures Marking Systems Inc.  
**Address:** 12-1550 Yorkton Court  
Burlington ON, L7P 5B7  
**Emergency Telephone:** (905) 630 0909, available during office hours, 8:30am -  
4:00pm EST, Monday - Friday, in English.  
**Fax Number:** (905) 639-0919  
**Date Prepared:** January 4, 2017

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PPE†	
† Sec. 8	

### SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

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

**SOLIDS:** Mixed Nitrate Salts (trade secret) 4% ACGIH TLV: None Established TXDS: ORL-HMN LDLO: 500mg/kg

**LIQUIDS:** None.

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

### SECTION 3 – HAZARD INFORMATION

**Inhalation:** N/A  
**Ingestion:** Toxic to digestive tract and central nervous system. May decrease ability of blood to carry oxygen. Nausea, vomiting, diarrhea, and possible facial discoloration.  
**Skin contact:** Irritation. Dermatitis possibly aggravated.  
**Eye contact:** Irritation.

### SECTION 4 – FIRST AID MEASURES

**Skin contact:** Flush thoroughly with water for fifteen minutes.  
**Eye contact:** Flush thoroughly with water for fifteen minutes.  
**Ingestion:** Give emetic and contact physician.  
**Inhalation:** N/A  
**Always seek medical attention if irritation continues.**

### SECTION 5 – FIRE-FIGHTING MEASURES

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

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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

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### 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.
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## SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND USE

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### 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
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## SECTION 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION

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**Occupation Exposure Limits:** N/A

### Personal Protective Equipment:

- Respiratory System:** N/A  
**Skin and Body:** Optional - apron  
**Hands:** Optional- for sensitive skin wear rubber gloves.  
**Eyes:** For extra protection, wear safety goggles.  
**Other/Special:** Local exhaust sufficient
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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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- Physical State:** Liquid  
**Color:** Clear  
**Odor:** Slight odor  
**Odor Threshold:** N/A  
**pH:** 8.8 to 9.2  
**Boiling Point:** 212°F  
**Melting / Freezing Point:** Melting - N/A Freezing - below 32°F  
**Flash Point:** N/A  
**Fire Hazards in Presence of various materials:** 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 (Butyl Acetate= 1):** N/A  
**Density:** N/A  
**Solubility:** Complete (100%)  
**Vapor Density:** N/A

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## SECTION 10 – REACTIVITY DATA

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**Stability:** Stable  
**Conditions to avoid:** If solution dries; heat, open flame sparks.  
**Incompatibility:** (materials to avoid) If solution dries; reducing agents, organic material, oxidizers.  
**Hazardous Decomposition or By-products:** None, but surrounding fire may produce nitrogen oxides.  
**Hazardous polymerization:** Will not occur.

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## SECTION 11 – TOXICOLOGICAL INFORMATION

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**Carcinogenicity:** NTP: No IARC: No OSHA: No  
**Health Hazards (Acute & Chronic);**  
Toxic to digestive tract and central nervous system. May decrease ability of blood to carry oxygen.  
Nausea, vomiting, diarrhea, and possible facial discoloration. May cause irritation to eyes.  
May cause irritation skin. Dermatitis can possibly be aggravated.

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## SECTION 12 – ECOLOGICAL INFORMATION

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N/A

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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Observe all federal, state and local environmental regulations.

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## SECTION 14 – TRANSPORT INFORMATION

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Keep container tightly closed and keep from freezing (3

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## SECTION 15 – TRANSPORT INFORMATION IRRITANT

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

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## SECTION 16 – OTHER INFORMATION

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**Source of key data used to**  
**Compile Safety Data Sheet:** Material Safety Data Sheet. Form  
OSHA-20  
**Issue Date:** 26 February 1987  
**Changes to Issue:** 16 April 2016

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