

# Millennium Signatures Marking Systems Inc.

Phone: 905-639-0909

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## SAFETY DATA SHEET

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### SECTION 1 – IDENTIFICATION AND COMPANY DETAIL

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**Product Name:** X4R-415 Electrolyte  
**Product Code(s):** X4R-415 Electrolyte  
**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) 639-0909, available during office hours, 8:00am - 5:00pm EST, Monday - Friday, in English.  
**Fax Number:** (905) 639-0919  
**Date Prepared:** January 4, 2017

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† Sec. 8	

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### SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

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

**SOLIDS:** Ammonium Salt 3% (trade secret)

**LIQUIDS:**

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

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### SECTION 3 – HAZARD INFORMATION

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**Inhalation:** N/A  
**Ingestion:** Harmful if swallowed, nausea.  
**Skin contact:** Irritating on contact. Possible rash. Dermatitis possibly aggravated.  
**Eye contact:** Irritating on contact. Redness.

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### SECTION 4 – FIRST AID MEASURES

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**Skin contact:** Flush thoroughly with water for fifteen minutes.  
**Eye contact:** Flush thoroughly with water for fifteen minutes.  
**Ingestion:** Do NOT induce vomiting. Get medical assistance.  
**Inhalation:** N/A

**Always seek medical attention if irritation continues.**

# SAFETY DATA SHEET

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## SECTION 5 – FIRE-FIGHTING MEASURES

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**Suitable extinguishing media:** N/A **Special fire fighting 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, 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:** 7.2 to 7.6  
**Boiling Point:** 212°F

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## SAFETY DATA SHEET

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

**Flash Point:** N/A

**Fire Hazards in presence** N/A of

**various substances: 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

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### SECTION 10 – REACTIVITY DATA

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**Stability:** Stable

**Conditions to avoid:** N/A

**Incompatibility:** (materials to avoid) Oxidizers, acids, strong alkalis

**Hazardous Decomposition or By-products:** Ammonia or encompassing fire may release oxides of nitrogen.

**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); Harmful if swallowed.

Irritating on contact to skin and eyes. Possibility of rash and/or redness to skin and eyes. Nausea

Dermatitis possibly aggravated from exposure.

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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 (32° F).

# SAFETY DATA SHEET

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## SECTION 15 – TRANSPORT INFORMATION

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### IRRITANT

**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. Essentially similar to U.S. Department of Labor Form OSHA-20

**Issue Date:** 26 February 1987

**Changes to Issue:** 7 April 2015

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