

Millennium Signatures Marking Systems Inc.

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SAFETY DATA SHEET

Product Name: X4R-414 Electrolyte **Product Code(s):** X4R-414
Recommended Use: For use in the Electro-Chemical Etching Process
Manufacturers Name: Millennium Signatures Marking Systems, Inc.
Address: 12-1550 Yorkton Court
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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: Nitrate Salts 8% (trade secret)
Chlorate Salts 4% (trade secret)

LIQUIDS:

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: Irritation of G.I. tract and kidneys. Nausea, and possible facial discoloration.

Skin contact: Irritating on contact. Dermatitis possibly aggravated.

Eye contact: Irritating on contact. Mild burning.

SECTION 4 – FIRST AID MEASURES

Skin contact: Wash thoroughly with water for fifteen minutes.

Eye contact: Flush thoroughly with water for fifteen minutes.

Ingestion: Give emetic and call physician immediately.

Inhalation: N/A

Always seek medical attention if irritation continues.

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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: Clear

Odor: Slight odor

Odor Threshold: N/A

pH: 6.6 to 7.0

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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/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) Reducing agents, combustible materials.
Hazardous Decomposition or By-products: None, but surrounding fire may produce nitrogen oxides.
Hazardous polymerization: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP: No IARC: No OSHA: No

Health Hazards (Acute & Chronic); Irritation of G.I. tract and kidneys.
Irritating on contact to skin and eyes.
Nausea and possible facial discoloration.
Dermatitis possibly aggravated from exposure.

SECTION 12 – ECOLOGICAL INFORMATION

N/A

SECTION 13 – DISPOSAL CONSIDERATIONS

Observe all federal, state and local environmental regulations.

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SECTION 14 – TRANSPORT INFORMATION

Keep container tightly closed and keep from freezing (32° F).

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: 15 May 1990

Changes to Issue: 21 April 2015

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