

# Millennium Signatures Marking Systems Inc.

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## SAFETY DATA SHEET

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### SECTION 1 – IDENTIFICATION AND COMPANY DETAIL

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**Product Name:** ESN Neutralizer  
**Product Code(s):** ESN  
**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

HMIS	
H	1
F	0
R	1
PPE†	
† Sec. 8	

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### SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

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

##### SOLIDS:

**LIQUIDS:** Monoethanolamine (CAS#141-43-5) TLV: 3ppm PEL: 3ppm STEL: 6ppm

**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:** Avoid breathing product mists. Breathing mists in excess may cause irritation of upper respiratory tract. Persons with chronic respiratory disease may show increased symptoms due to irritation.

**Ingestion:** May effect persons with existing kidney or liver disease.

**Skin contact:** Mild irritation may occur.

**Eye contact:** Mild irritation may occur.

# SAFETY DATA SHEET

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## SECTION 4 – FIRST AID MEASURES

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**Skin contact:** Wash with soap and water.  
**Eye contact:** Flush eyes with thoroughly with water for 15 minutes; if irritation continues, consult physician.  
**Ingestion:** Induce vomiting by administering an emetic. Consult Physician.  
**Inhalation:** Remove to source of fresh air.  
**Always seek medical attention if irritation continues.**

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## SECTION 5 – FIRE-FIGHTING MEASURES

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**Suitable extinguishing media:** Water fog, dry chemical powder or appropriate foam.  
**Special firefighting procedures:** If water boils off, use water fog, carbon dioxide, foam, dry chemical.  
**Unusual fire and explosions hazards:** None

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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

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**Personal Protective Equipment:** rubber gloves, safety goggles, optional-apron  
**Steps to be taken in the event of accidental release:** Dilute with water and mop up. Dispose of waste in accordance with all current local, state and national 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:** Dilute with water and mop up. Minimize the release of chemical into the environment.  
**Waste disposal method:** Dilute with water and transfer into sewage or waste disposal system which provides air or biological oxidation. Dispose of in accordance with all current local, state and national regulations.  
**Precautions to be taken in Handling and Storage:** Keep container tightly closed. Keep from freezing (32 degrees [F])  
Wash hand thoroughly after handling. No eating, drinking or smoking in work area.  
**Incompatibility:** (materials to avoid) Contact with strong oxidizers  
**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:** (Required only if spraying or misting) Use mechanical filter.  
**Skin and Body:** Optional-Apron  
**Hands:** Rubber Gloves  
**Eyes:** Safety glasses or goggles  
**Other/Special:** Local exhaust is sufficient.

# SAFETY DATA SHEET

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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**Physical State:** Liquid and suspension.  
**Color:** Green fluorescent fluid. **Odor:** amine odor  
**Odor Threshold:** N/A  
**pH:** 9.2 to 9.8  
**Boiling Point:** 215 Degrees (F)  
**Melting/Freezing Point:** N/A - Freezing below 32 degrees (F)  
**Flash Point:** N/A  
**Fire Hazards in presence of various substances:** N/A  
**Auto-ignition temperature:** N/A  
**Explosive Properties:** No risk  
**Lower explosion limit:** N/A  
**Oxidizing properties:** N/A  
**Vapor Pressure:** N/A  
**Evaporation Rate:** Like water  
**Density:** Like water  
**Solubility:** Complete (100%)  
**Vapor Density:** Like water

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## SECTION 10 – REACTIVITY DATA

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**Stability:** STABLE  
N/A  
**Conditions to avoid:**  
**Incompatibility:** (materials to avoid) Contact with strong oxidizers **Hazardous**  
**Decomposition or By-products:** Thermal; oxides of carbon and 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

**The toxicological information for the components is:** N/A Acute effects  
Causes mild eye irritation.  
Causes mild skin irritation.  
Material is irritating to mucous membranes.  
May be harmful by ingestion or if contacted with skin.

# SAFETY DATA SHEET

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## SECTION 12 – ECOLOGICAL INFORMATION

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Potential as Pollutant: Material is not considered a pollutant.

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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Effective waste disposal treatment should be utilized. COD – 511,800ppm **Biological:**  
Oxygen demand (BOD-5) 325,000ppm

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## SECTION 14 – TRANSPORT INFORMATION

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**Special Precautions:** Keep from freezing ( 32 degrees [F] )

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## SECTION 15 – TRANSPORT INFORMATION

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

**Issue Date:** 04 May 1987

**Changes to Issue:** 25 March 2015

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