

Millennium Signatures Marking Systems Inc.

Phone: 905-639-0909

Email: info@millenniumsignatures.com

Version 1.0
Date May 8th, 2016
Supersedes January 4, 2017

Product ID: 73XNW

CHEMTREC: (800) 424 -9300
For Chemical Emergency Only

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFICATION

Product Name 73XNW Marking Ink

1.2 RELEVANT IDENTIFIED USES OF THE PRODUCT

Product Use Industrial applications: Marking Ink

1.3 SUPPLIER

Millennium Signatures Marking
Systems Inc.
12-1550 Yorkton Court
Burlington, ON L7P 5B7
Tel: (905) 639 0909
Fax: (905) 639 0919

1.2 EMERGENCY TELEPHONE NUMBER(S)

Medical	Poison Control CenterUSA	(800) 222 1222
Transportation	CHEMTREC USA	(800) 424 9300

SECTION 2: Hazards Identification

2.1 CLASSIFICATION OF THE PRODUCT

H225	Flammable Liquid 2	Highly flammable liquid and vapor
H301	Acute Toxicity 3	Moderately toxic if swallowed
H317	Skin Sensitivity	May cause an allergic skin reaction
H319	Eye Irritant 2A	Causes serious eye irritation
H332		Harmful if inhaled

Safety Data Sheet

H336	STOT SE 3	May cause drowsiness and dizziness
H402	Aquatic Acute 3	Harmful to aquatic life

2.2 LABEL ELEMENTS



Danger: Highly flammable liquid and vapor. Irritating to eyes and respiratory system. Harmful by inhalation, in contact with skin and if swallowed.

Harmful: Possible risk of irreversible effects through inhalation, contact with skin and if swallowed. Harmful to aquatic life.

Target Organ(s): Eyes, Kidneys, Central Nervous System

ANSIZ129.1-2006 Label Elements

WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL. Keep away from flame, heat and static discharge sources. Irritant and Central Nervous System depressant. Avoid inhalation of vapors and contact with eyes and skin. May be fatal or cause blindness if swallowed. If inhaled remove to fresh air. If splashed in eyes flush with water for more than 15 minutes. If in contact with skin, flush with water and wash with mild soap. In medical emergency call the Poison Control Center (USA 1 303 623 5716) and a physician. Read MSDS before using.

2.3 OTHER HAZARDS

Repeated exposure may cause skin dryness or cracking

IF SWALLOWED: Immediately call a Poison Control Center and a physician. Get medical attention. Keep container tightly closed. Store in a well ventilated place.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product Name	CAS NO.	EC No.	%	GHS Classification
Ethylene Glycol	107-21-1	203-473-3	13	Target Organs: Kidneys, central nervous system, respiratory system Eye irritant Category 2A XN; R22
Proprietary Ingredient			31	This proprietary ingredient is a member of the Glycol Ether family as defined in Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)
Isopropyl Alcohol	67-63-0	200-661-7	<33	Flammable Liquids: Category 2 Serious Eye Damage/Irritation Category 2A: F;R11 Xi;R36 R67

Safety Data Sheet

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

EYE CONTACT: Flush immediately with water for 15 minutes. Get medical attention.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Do not re-use clothing until cleaned.

INHALATION: Remove to fresh air. Restore breathing. Get medical attention.

INGESTION: Do not give liquids if victim is unconscious or drowsy. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Call a Poison Control Center or physician.

SECTION 5: FIRE FIGHTING MEASURES

5.1 PHYSICAL CHARACTERISTICS

FLASH POINT: 12 °C / 53 °F

METHOD USED: TCC

FLAMMABLE LIMITS IN AIR BY VOLUME: LOWER: 1.2

UPPER: 23.0

5.2 EXTINGUISHING MEDIA

EXTINGUISHING MEDIA: Alcohol foam, CO₂, dry chemical, water fog. DO NOT use a direct stream of water. Product will float and can be re-ignited on surface of water.

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS:

Clear fire area of unprotected personnel. Do not enter confined fire space without using self contained breathing apparatus and protective clothing.
Keep run-off water out of sewers and water sources. If risk of water pollution occurs, notify appropriate authorities.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup that could result in container rupture.
Vapors are heavier than air and may spread near ground to sources of ignition. May explode when heated or when exposed to flames or sparks. May form explosive or toxic mixtures with air.

SPECIFIC HAZARDS: Fire creates toxic gases/vapors/fumes of Carbon Monoxide (CO). Carbon Dioxide (CO₂).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Avoid eye or skin contact. Place leaking containers in a well ventilated area. Eliminate ignition sources. If fire potential exists, blanket spill with foam or use water spray to disperse vapors.

Safety Data Sheet

Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean spill, flush area sparingly with water or use an absorbent. Avoid run-off into storm sewers and ditches that lead to natural waterways. All cleanup and disposal should be carried out in accordance with federal, state and local regulations. If required, state and local authorities should be notified.

6.2 WASTE DISPOSAL METHOD:

Recovered liquids may be sent to a licensed recycler or incineration facility. Contaminated material must be disposed of in a permitted waste management facility. Consult federal, state, or local disposal authorities for approved procedures.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatible materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Do not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

Keep liquid away from heat, sparks and open flame. Surfaces that are sufficiently hot may ignite even liquid product in the absence of spark or flame. Extinguish pilot lights, cigarettes and turns off other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from handling point flash fire can result.

Keep containers tightly closed when not in use. Use adequate ventilation. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld, or perform similar operations on or near the containers.

Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Store in a cool dry place with adequate ventilation Keep away from open flames and high temperatures.

Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before re-use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE GUIDELINES

Chemical Name	OSHA PEL TWA 8 HRS	ACGIH TLV STEL	Notes
---------------	-----------------------	-------------------	-------

Safety Data Sheet

	ppm	mg/m ³	ppm	mg/m ³	
Ethylene Glycol	-	-		100	Ceiling, aerosol only
Isopropyl Alcohol	400	980	400	980	F;R11 Xi;R36 R67

8.2 PERSONAL PROTECTION



- Ventilation:** Use only with adequate ventilation to keep employee exposure below any recommended or statutory limits. Use explosion proof ventilation equipment.
- Hygiene:** Wash hands, forearms and face thoroughly after handling chemical products and before eating. Remove contaminated clothing before reusing. Place eyewash stations and safety showers close to the location of chemical storage and use.
- Eye Protection:** Use approved safety goggles or splash shields when exposed to liquid splashes, mists, gases or dust.
- Hand Protection:** Wear chemical resistant, impervious gloves when handling chemical products.
- Respiratory Protection:** Use an air purifying or air fed respirator if exposure will result in exposure in excess of allowable limits. Ensure that the respirator's safe working rating exceeds the expected exposure.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 EXPOSURE GUIDELINES

PHYSICAL STATE	Liquid	pH	Not determined
FLASH POINT	12°C / 53°F	EXPLOSION LIMITS	Lower 1.2 Upper 23.0
BOILING POINT	172°C / 340°F	SPECIFIC GRAVITY	1.0
VAPOR DENSITY	4.07	EVAPORATION RATE	Slower than Ether
VAPOR PRESSURE (k Pa)	- @ 20°C	% VOLATILE RATE	81.15%
WEIGHT PER GALLON	8.34 lbs	APPEARANCE & ODOR	Moderately viscous. Alcohol odor
SOLUBILITY IN WATER	Insoluble	VOC	741 grams/liter

9.2 OTHER EXPOSURE GUIDELINES

9.3 ENGINEERING MEASURES

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Safety Data Sheet

SECTION 10: STABILITY AND REACTIVITY

- 10.1 STABILITY** Stable under normal temperature conditions.
- 10.2 REACTIVITY**
- 10.3 POSSIBILITY OF HAZARDOUS REACTIONS** Hazardous reactions will not occur under normal storage conditions and use.
- 10.4 CONDITIONS TO AVOID** Heat, flames and sparks.
- 10.5 INCOMPATIBLE MATERIALS** None
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS** Hazardous decomposition products should not be produced under normal conditions. Fire creates toxic gases and vapors of Carbon Monoxide (CO) and Carbon Dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 ACUTE TOXICITY

Chemical Name	Result	Species	Dose	Exposure
Ethylene Glycol	LD50 Oral	Mouse	5500 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
	LD50 Dermal	Rabbit	9530 uL/kg	-
	Draize Test Eye	Rabbit	500mg	24 hours; Mild
Isopropyl Alcohol	LC50 Inhalation	Mouse	53000 mg/m ³	8 hours
	LC50 Inhalation	Rat	16000 ppm	
	LC50 Inhalation	Rat	72600 mg/m ³	
	LD50 Oral	Mouse	3600 mg/kg	
	LD50 Oral	Rabbit	6410 mg/kg	
	LD Oral	Rat	5045 mg/kg	
	LD50 Dermal	Rabbit	12800 mg/kg	

11.2 CHRONIC TOXICITY

Inhalation of vapors in high concentration may cause irritation of the respiratory system. Concentration above the permissible limits in the workplace may cause dizziness, mild intoxication and headache. Symptoms include headache, dizziness, fatigue, muscular weakness and drowsiness. In extreme cases loss of consciousness may occur.

11.3 IRRITATION/CORROSION

Skin: Causes mild irritation. Repeated exposure may cause skin cracking or dryness.
 Eyes: Causes serious eye damage
 Respiratory: Not classified. No known significant effects or critical hazards.

11.4 SENSITIZATION

Skin: Not classified. No known significant effects or critical hazards.
 Respiratory: Not classified. No known significant effects or critical hazards.

Safety Data Sheet

11.5 **MUTAGENICITY** Not determined

11.6 **CARCINOGENICITY**

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethylene Glycol	Not listed	Not listed	Not listed	Not listed
Isopropyl Alcohol	Not listed	Not listed	Not listed	Not listed

ACGIH: American Conference of Governmental Industrial

Hygienists IARC: International Agency for Research on

Cancer NTP: National Toxicity Program

11.7 **REPRODUCTIVE TOXICITY** Not determined.

11.8 **DEVELOPMENTAL TOXICITY** Not determined

11.9 **TERATOGENIC** Not determined

11.10 **TARGET ORGAN EFFECTS** Kidneys, Central Nervous System, Eyes, Liver, Reproductive System, Respiratory System, Skin,

SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**

Chemical Name	Result	Species	Exposure
Ethylene Glycol	LC50 41000 mg/L	Rainbow Trout	96 hours
	LC50 46300 mg/L	Daphnia (Water Flea)	48 hours
Isopropyl Alcohol	Acute LC50 >1000 ppm	Fathead Minnow	96 hours
	Acute LC50 >1000 ppm	Daphnia	96 hours
	Acute LC50 8970-9280 ppm	Golden Orfe	48 hours

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Waste Treatment Methods**





Waste Disposal Methods Dispose of the waste according to local regulations. Waste should not be released into the environment. Waste can be incinerated or disposed of in a landfill when in accordance with local regulations. This material, as supplied, is a hazardous waste according to Federal regulations (40 CFR 261).
 Dispose of surplus and non-recyclable product via a licensed waste disposal contractor

Safety Data Sheet

Contaminated Packaging Dispose of in accordance with local regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

Special Precautions None

SECTION 14: TRANSPORT INFORMATION

	UN	IMDG	IATA	US DOT
Number	UN1210	UN1210	UN1210	UN1210
UN Proper Shipping Name	Printing Ink	Printing Ink	Printing Ink	Printing Ink
Transport Hazard Class	3	3	3	3
				
Packaging Group	II	II	II	II
Environmental Hazards	No	No	No	No
Special Precautions for User	Not available	Not available	Not available	Not available
Additional Information	None	None	None	None

ERG Emergency Response Guide 129

SECTION 15: REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

TSCA United States Substances Control Act Section 8(b) Inventory Complies **DSL/NDSL** Canadian Domestic Substances List / Non Domestic Substances List

US FEDERAL REGULATIONS

SARA 313 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal regulations, Part 372.

Chemical Name	CAS Number
Ethylene Glycol	107-21-1
Isopropyl Alcohol	67-63-0

SARA 311/312 HAZARD CATEGORIES Acute Health Hazard Yes Chronic Health Hazard Yes Fire Hazard Yes Sudden Release of Pressure Hazard No Reactive Hazard No

Safety Data Sheet

CLEAN WATER ACT

This product does not contain any substances regulated as pollutants to the Clean Water Act (40CFR 122)

CERCLA Comprehensive Environmental Response Compensation and Liability Act (CERCLA 40CFR 302) or the Superfund Amendments and Reauthorization Act (SARA 40CFR 355).

NATIONAL FIRE PROTECTION ASSOCIATION (USA)

HEALTH **2** **FLAMMABILITY** **3** **REACTIVITY** **0**



U.S. STATE REGULATIONS

California Proposition 65 This product contains the following Proposition 65 chemicals:

Chemical Name	CAS Number	California Proposition 65
Ethylene Glycol	107-21-1	Not listed
Isopropyl Alcohol	67-63-0	Not listed

U.S. STATE RIGHT TO KNOW REGULATIONS

Chemical Name	CA	MA	PA	MN	RI	NJ
Ethylene Glycol	X	X	X	X		X
Isopropyl Alcohol	X	X	X	X		X

TARIFF CODE HARMONIZED SYSTEM

INTERNATIONAL REGULATIONS 3215.11 Printing Ink
 USA ...00.60
 EU ...00.00

CANADA This product has been classified in accordance with the hazard criteria of the Controlled Products regulations (CPR) and the MSDS contains all the information required by the CPR.

Safety Data Sheet



Irritant



Highly Flammable

RISK PHRASES

- R11** Highly Flammable
- R20/21/22** Harmful by inhalation, in contact with skin and if swallowed
- R36/38** Irritating to eyes and skin
- R52/53** Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment
- R66** Repeated exposure may cause skin dryness or cracking
- R67** Vapors may cause drowsiness and dizziness

SAFETY PHRASES

- S7** Keep container tightly closed
- S9** Keep container in a well ventilated space
- S16** NO SMOKING: Keep away from sources of ignition
- S24** Avoid contact with eyes
- S25** Avoid contact with eyes
- S26** In case of contact with eyes, rinse immediately with water for 15 minutes. Seek medical attention
- S33** Take precautions against static discharges
- S37/39** Wear suitable gloves and eye/face protection
- S46** If swallowed seek medical advice immediately
- S51** Use only in well ventilated places
- S60** This material and its container must be disposed of as hazardous waste

SECTION 16: OTHER INFORMATION

DISCLAIMER: While Millennium Signatures Marking Systems Inc. believes that the data set forth in this sheet is accurate and represents the best information currently available to Millennium Signatures Marking Systems Inc. makes no warranty, expressed or implied, with respect thereto and expressly disclaims all liability for reliance thereon.

© MILLENNIUM SIGNATURES MARKING SYSTEMS INC.