Material Safety Data Sheet

Issuing Date 23-Aug-2013 **Revision Date** 23-Aug-2013 **Revision Number** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **BIC Mark-It Permanent Marker**

Recommended Use Writing Instrument

NYSID # E5100
Packaged & Marketed by:
Liberty Enterprises
43 Liberty Drive
Amsterdam, NY 12010
518-954-3002

Supplier Address
BIC Corporation
One BIC Way, Suite 1
Shelton, CT 06484
TEL: 203-783-2000

BIC Inc.
155 Oakdale Rd.
Toronto, Ontario
Canada
M3N 1W2
TEL: 416-742-9173

Emergency Telephone Number 203-783-2412

2. HAZARDS IDENTIFICATION

Emergency Overview

The product contains no substances which at their given concentration are considered to be hazardous to health

Appearance Varies **Physical State** Solid* " The ink is absorbed in a filler material. There is no free flowing ink in this marker.". **Odor** Alcohol

OSHA Regulatory Status Information listed in Sections 3, 11, and 15 is consistent with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and has also been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) This product is not a toxic or hazardous substance as defined by 16 CRF 1500.3 of the Federal Hazardous Substances Act (FHSA) and as such does not require acute or chronic hazard labeling. The ink in this writing instrument has been approved by board certified toxicologists under the WIMA (Writing Instrument Manufacturer's Association) certification program and/or the ACMI (Art & Creative Materials Institute) certification programs. Reviews were conducted using guidelines set forth by the CPSC (Consumer Product Safety Commission). Inks are certified as compliant under ASTM D-4236

Potential Health Effects

Principle Routes of Exposure Inhalation. Skin contact. Eye contact.

Acute Toxicity

Eyes Contact with ink may cause irritation.
Skin None known.
Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Ingestion Not an expected route of exposure.

Chronic Effects None known.

Aggravated Medical Conditions None known.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Propylene glycol monomethyl ether	107-98-2	60-100
Ethanol	64-17-5	60-100
Propyl alcohol	71-23-8	10-30
Ethylene glycol	107-21-1	7-13
2-Butoxyethanol	111-76-2	3-7
Phosphoric acid, 2-ethylhexyl ester	12645-31-7	1-5

The above listing represents the ink component of an entire line of products. Each individual ink may not contain all the ingredients listed above. In addition to the items listed above, the products also contain various dyes.

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin Contact Wash skin with soap and water.

Inhalation Move victim to fresh air.

Ingestion Clean mouth with water and afterwards drink plenty of water. If symptoms persist, call a physician. Do not induce vomiting without medical advice.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties The ink, which is absorbed in a solid filler, is flammable but not readily ignited.

Flash Point 55.4 °F (Liquid Ink only) / 13 °C
The item itself cannot exhibit a flashpoint because it is a solid.

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire and/or explosion do not breathe fumes

NFPA	**Health Hazard** 1	**Flammability** 1	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 1	**Flammability** 1	**Physical Hazard** 0	**Personal Protection** X

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Remove all sources of ignition.

Environmental Precautions Prevent further product breakage if safe to do so. Use absorbents to contain ink for proper disposal.

Methods for Containment None required.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Handling None required under normal usage.

Storage Keep containers tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines The following exposure limits are provided for information only; exposure is not expected under normal conditions of use or storage.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Propylene glycol monomethyl ether 107-98-2	STEL: 150 ppm TWA: 100 ppm	(vacated) TWA: 100 ppm (vacated) TWA: 360 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 540 mg/m³	TWA: 100 ppm TWA: 360 mg/m³ STEL: 150 ppm STEL: 540 mg/m³
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m³
Propyl alcohol 71-23-8	-	TWA: 200 ppm TWA: 500 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 500 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 625 mg/m³	IDLH: 800 ppm TWA: 200 ppm TWA: 500 mg/m³ STEL: 250 ppm STEL: 625 mg/m³
Ethylene glycol 107-21-1	Ceiling: 100 mg/m³ aerosol only	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m³	
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/Face Protection No protective equipment is needed under normal use conditions.

Skin and Body Protection No protective equipment is needed under normal use conditions.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Varies.	**Odor**	Alcohol.
Odor Threshold	No information available.	**Physical State**	Solid* " The ink is absorbed in a filler material. There is no free flowing ink in this marker."
pH	No information available.		
Flash Point	55.4 °F (Liquid Ink only) / 13 °C The item itself cannot exhibit a flashpoint because it is a solid.	**Autoignition Temperature**	No information available.
Decomposition Temperature	No information available.	**Boiling Point/Boiling Range**	78 °C / 174.4 °F (Liquid Ink only)
Melting Point/Range	No information available.		
		Flammability Limits in Air	No information available.
Specific Gravity	0.82-0.88 @ 20 (°C) (Ink)	**Water Solubility**	Ink soluble in water.
Solubility	No information available.	**Evaporation Rate**	No information available.
Vapor Pressure	No data available.	**Vapor Density**	No data available.
Viscosity	2-6 cp @ 20 °C (Ink)		

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible Products None known based on information supplied.

Conditions to Avoid None known based on information supplied.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propylene glycol monomethyl ether	= 5200 mg/kg (Rat)	= 13000 mg/kg (Rabbit)	> 24 mg/L (Rat) 1 h = 54.6 mg/L (Rat) 4 h
Ethanol	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Propyl alcohol	= 1870 mg/kg (Rat)		> 13548 ppm (Rat) 4 h
Ethylene glycol	= 4000 mg/kg (Rat)	= 9530 µL/kg (Rabbit)	
2-Butoxyethanol	= 470 mg/kg (Rat)	220 mg/kg (Rabbit) 2270 mg/kg (Rat)	= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h

Chronic Toxicity

Chronic Toxicity None known.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol	A3	Group 1	Known	X
2-Butoxyethanol	A3	Group 3		

Target Organ Effects None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product does not exhibit immediate danger to the aquatic environment. Ecotoxicity effects of liquid ink components

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Propylene glycol monomethyl ether		LC50 96 h: 4600-10000 mg/L static (Leuciscus idus) LC50 96 h: = 20.8 g/L static (Pimephales promelas)		EC50 48 h: = 23300 mg/L (Daphnia magna)
Ethanol		LC50 96 h: 12.0 - 16.0 mL/L static (Oncorhynchus mykiss) LC50 96 h: > 100 mg/L static (Pimephales promelas) LC50 96 h: 13400 - 15100 mg/L flow-through (Pimephales promelas)	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50 48 h: 9268 - 14221 mg/L (Daphnia magna) EC50 24 h: = 10800 mg/L (Daphnia magna) EC50 48 h: = 2 mg/L Static (Daphnia magna)
Propyl alcohol		LC50 96 h: = 4480 mg/L flow-through (Pimephales promelas)	EC50 = 17700 mg/L 5 min EC50 = 45000 mg/L 5 h EC50 = 8686 mg/L 15 min EC50 = 980 mg/L 12 h	EC50 48 h: 3339 - 3977 mg/L Static (Daphnia magna) EC50 48 h: = 3642 mg/L (Daphnia magna)
Ethylene glycol	EC50 96 h: 6500 - 13000 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 14 - 18 mL/L static (Oncorhynchus mykiss) LC50 96 h: 40000 - 60000 mg/L static (Pimephales promelas) LC50 96 h: = 16000 mg/L static (Poecilia reticulata) LC50 96 h: = 27540 mg/L static (Lepomis macrochirus) LC50 96 h: = 40761 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 41000 mg/L (Oncorhynchus mykiss)	EC50 = 10000 mg/L 16 h EC50 = 620 mg/L 30 min EC50 = 620.0 mg/L 30 min	EC50 48 h: = 46300 mg/L (Daphnia magna)
2-Butoxyethanol		LC50 96 h: = 1490 mg/L static (Lepomis macrochirus) LC50 96 h: = 2950 mg/L (Lepomis macrochirus)		EC50 24 h: 1698 - 1940 mg/L (Daphnia magna) EC50 48 h: > 1000 mg/L (Daphnia magna)

Chemical Name	Log Pow
Propylene glycol monomethyl ether	-0.437
Ethanol	-0.32
Propyl alcohol	0.34
Ethylene glycol	-1.93
2-Butoxyethanol	0.81

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations

Contaminated Packaging Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Ethanol	Toxic Ignitable
Propyl alcohol	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies

Legend

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

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302). In the products' present state it does contain free flowing liquid:

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Ethylene glycol	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage. This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Ethanol	64-17-5	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Propylene glycol monomethyl ether	X	X	X		X
Ethanol	X	X	X		
Propyl alcohol	X	X	X		X
Ethylene glycol	X	X	X	X	X
2-Butoxyethanol	X	X	X	X	X

International Regulations

Mexico - Grade Serious risk, Grade 3

Chemical Name	Carcinogen Status	Exposure Limits
Ethanol		Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m^3
Propyl alcohol		Mexico: TWA 200 ppm Mexico: TWA 500 mg/m^3 Mexico: STEL 250 ppm Mexico: STEL 625 mg/m^3
Ethylene glycol		Mexico: Ceiling 100 mg/m^3
2-Butoxyethanol		Mexico: TWA 26 ppm Mexico: TWA 120 mg/m^3 Mexico: STEL 75 ppm Mexico: STEL 360 mg/m^3

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.

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

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General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet