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Section 1: Identification

1.1 Product identifier:
Marsh 88-HF Marker

1.2 Other means of identification:
26054, 4MC24

1.3 Recommended Use:
Marker for industrial use.

Restrictions on use: Not for use on skin. Keep out of reach of children.

1.4 Details of the supplier of the Safety Data Sheet:
MSSC, LLC
926 McDonough Lake Road
Collinsville IL
62234
618-343-1006
www.msscllc.com

Section 2: Hazards Identification

2.1 Classification of the chemical according to GHS Classifications (UNECE 3rd Revised Edition):
Not classified under any GHS hazard class.

2.2 Label elements according to GHS:
Not applicable

2.3 Other hazards:
The printing ink inside the marker is a flammable liquid. Exposures to liquid and/or vapors from misuse of the product may cause drowsiness and dizziness. Exposure to hazardous substances is not expected when handling this product for its intended use.

2.4 Other hazard classifications:
USA: This material is not considered a hazardous chemical by the OSHA Hazard Communication Standard 29 CFR 1910.1200 (2012).

Canada: WHMIS Not controlled.

Section 3: Composition/Information on Ingredients

3.1 Substances:

Chemical Name	CAS No.	% (wt/wt)	EC #
1-methoxy-2-propanol	107-98-2	60 - 90	203-539-1

Section 4: First-Aid Measures

4.1 First aid measures:
Inhalation: Remove source of exposure or move to fresh air. Get medical advice/attention if you feel unwell or are concerned.
Skin Contact: Rinse with lukewarm, gently flowing water for 5 minutes. If skin irritation occurs get medical advice/attention.

Eye Contact: Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice/attention.

Ingestion: Call a Poison Centre or doctor if you feel unwell or are concerned.

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Section 4: First-Aid Measures, continued

4.2 Most important symptoms and effects, acute and delayed:

Under normal conditions of use, the marker does not release more than very small quantities of a hazardous chemical and is not expected to pose health risk to workers.

From misuse:

If inhaled: at high concentrations symptoms may include headache, nausea, dizziness, drowsiness and confusion.
If in eyes: large amounts may cause mild irritation.
If on skin: large amounts may cause mild irritation.

4.3 Immediate medical attention and special treatment:

Special instructions: Not applicable
Medical Conditions Aggravated by Exposure: None known.

Section 5: Fire-fighting Measures

5.1 Suitable extinguishing media:

Small fire: Carbon dioxide, dry chemical powder or appropriate foam.
Large fire: Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
Unsuitable extinguishing media: None known.

5.2 Specific hazards arising from the chemical:

Markers contain a small volume of printing ink which is a flammable liquid. If involved in a fire, combustion may produce toxic and irritating fumes and gases which may include carbon dioxide, carbon monoxide and/or unburned hydrocarbons.

5.3 Special protective equipment and precautions for fire-fighters:

As for any fire, evacuate the area and fight the fire from a safe distance.
Fire-fighters should enter area wearing specialized protective equipment.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

If large volumes of liquid printing ink are released shut off or extinguish all sources of ignition; do not breathe vapors; ventilate the area.

6.2 Environmental precautions:

It is good practice to prevent releases into the environment.

6.3 Methods and material for containment and cleaning up:

If liquid printing ink is released: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labeled containers for disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Keep out of reach of children. Do not use near hot surfaces or flames.

7.2 Conditions for safe storage:

Store at temperatures not exceeding 50°C.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Under normal conditions of use marker does not release more than very small quantities of a hazardous chemical and is not expected to pose a health risk to workers. Measurable airborne concentrations of the component substances are not expected when markers are used for their intended purpose.

8.2 Engineering controls:

General ventilation is usually adequate.

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Section 8: Exposure Controls / Personal Protection, continued

8.3 Individual protection measures:

Personal protection: Workers must comply with the Personal Protective Equipment requirements of the workplace in which this product is handled.

Eye/Face protection: Not required if product is used as directed.

Skin protection: Not required if product is used as directed. In case of an emergency (e.g. an uncontrolled release): wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection: Not required if product is used as directed.

Section 9: Physical and Chemical Properties

9.1 Basic physical and chemical properties:	
Appearance:	Solid marker containing liquid, black printing ink.
Odor:	Printing ink has alcohol-like odor.
Odor threshold:	Not available
pH:	Not applicable
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	120°C (248°F)
Flash point:	35 ºC (95 ºF) of the enclosed liquid printing ink
Evaporation Rate:	Not available
Flammability (solid, gas):	Not applicable
Auto-ignition temperature:	Not self-igniting
Upper/lower flammability or explosive limits:	Not available
Explosive properties:	Not available
Oxidising properties:	Not applicable
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	Not available
Solubility (ies):	Insoluble soluble in water
Partition coefficient (n-octanol/water):	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable

Section 10: Stability and Reactivity

10.1 Reactivity:

Not reactive under normal conditions of use.

10.2 Chemical stability:

Normally stable.

10.3 Possibility of hazardous reactions:

None known.

10.4 Conditions to avoid:

Flames

10.5 Incompatible materials:

None known.

10.6 Hazardous decomposition products:

None known.

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Section 11: Toxicological Information

11.1 Likely routes of exposure:

Skin contact.

11.2 Acute toxicity:

Exposure by inhalation is not expected with normal use of the product.
Exposure by ingestion is not expected with normal use of the product.
Exposure by absorption through the skin is not expected with normal use of the product.

Skin corrosion / irritation:

Not known to cause skin irritation.

Serious eye damage / irritation:

Not known to cause eye irritation.

STOT (Specific Target Organ Toxicity) Single Exposure:

Inhalation: Product does not easily form a vapor unless the product is misused. Exposures to high vapor concentrations may cause drowsiness and dizziness.
Ingestion: Not an expected route of exposure with normal use of the marker.

Aspiration hazard:

Not an expected route of exposure with normal use of the marker.

11.3 Chronic toxicity:

STOT (Specific Target Organ Toxicity) Repeated Exposure:

Target organ effects are not expected with normal use of the marker.

Respiratory and / or skin sensitization:

Not known to be a skin sensitizer. Not known to be a respiratory sensitizer.

Germ cell mutagenicity:

Not known to be a mutagen.

Reproductive effects:

Not known to cause adverse reproductive effects.

Developmental effects:

Not known to harm the unborn child.

Effects on or via lactation:

None known

Carcinogenicity:

Exposures to carcinogenic substances are not expected when the product is used for its intended purpose.

Interactions with other chemicals:

Not available

Section 12: Ecological Information

12.1 Ecotoxicity:

Environmental information was not located.

12.2 Persistence and degradability:

No information was located.

12.3 Bioaccumulative potential:

No information was located.

12.4 Mobility in soil:

No information was located.

12.5 Other adverse effects:

No information was located.

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Section 13: Disposal Considerations

13.1 Disposal methods:

The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. Dispose of contents/container in accordance with local, regional, national and international regulations.

Section 14: Transport Information

14.1 Transport Regulation

U.S. Hazardous Materials Regulation (DOT 49CFR):	Limited quantity UN1210, PRINTING INK, Class 3, PG III, Ltd Qty
Canada TDG:	Limited quantity UN1210, PRINTING INK, Class 3, PG III, Ltd Qty
IMO Classification:	Limited quantity UN1210, PRINTING INK, Class 3, PG III, LTD QTY
ICAO/IATA Classification:	Limited quantity UN1210, PRINTING INK, Class 3, PG III
Environmental hazards:	None known
Special precautions for user:	None known
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not available

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations:

Marker meets the definition of an “article”.

USA:

OSHA: This article is not considered a hazardous chemical by the OSHA Hazard Communication Standard 29 CFR 1910.1200 (2012).

Toxic Substances Control Act (TSCA) Section 8(b): All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists: California Proposition 65: This product is not known to contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Canada:

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.

WHMIS classification: This article is not a controlled product / hazardous product under WHMIS.

DSL status: listed on the DSL (Domestic Substances List).

European Union:

This article is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

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Section 16: Other Information

Revision date:

April 16, 2014

Revision summary:

Replaces previous version of October 2012. Revised in all sections to GHS / SDS template; includes GHS classification and label elements.

References and sources for data:

CCOHS – ChemInfo
HSDB – Hazardous Substances Data Bank (US National Library of Medicine)
NIOSH Pocket Guide database.
RTECS – Registry of Toxic Effects of Chemical Substances
Supplier MSDS of the liquid printing ink products.

SDS prepared by:

LEHDER Environmental Services Ltd
519-336-4101
www.lehder.com

Additional information:

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