



# Safety Data Sheet

Issue Date: 17-Sep-2013

Revision Date: 18-Sep-2013

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Name** Extra Fine Line Marker

### Other means of identification

**SDS #** U-MARK-005

### Recommended use of the chemical and restrictions on use

**Recommended Use** Marking on most surfaces.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

U-Mark, Inc.  
102 Iowa Avenue  
Belleville, IL 62220 USA

### Emergency Telephone Number

**Company Phone Number** 618-235-7500  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Physical State** Liquid

### Classification

These markers are certified as non-toxic per ASTM D4236. This marker is classified as an article based on 29 CFR 1910.1200 OSHA Hazard Communication Standard; therefore, it is not considered a hazardous chemical when used as intended.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
n-Butyl acetate	123-86-4	30-40
Methyl ethyl ketone	78-93-3	1-6

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

## 4. FIRST-AID MEASURES

### First Aid Measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. Call a physician if you feel unwell.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician or Poison Control Center.

### Most important symptoms and effects

<b>Symptoms</b>	May include redness, drying and cracking of skin. Overexposure by inhalation may cause CNS depression- drowsiness, dizziness, confusion or loss of coordination. May cause severe eye irritation with reddening and watering.
-----------------	---

### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Carbon dioxide (CO<sub>2</sub>). Foam. Dry powder.

**Unsuitable Extinguishing Media** Do not use water in a jet. Water spray may be ineffective.

### Specific Hazards Arising from the Chemical

Flammable.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use cool water to cool equipment and to disperse vapors.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Use personal protective equipment as required. Remove all sources of ignition.
<b>Environmental Precautions</b>	Do not allow into any sewer, on the ground or into any body of water.

### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Spills should be contained, absorbed with liquid-binding material, and placed in a leak proof container. Dispose of in accordance with federal, state and local regulations.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling**

Wash thoroughly after handling. Use personal protection recommended in Section 8. Avoid breathing vapors or mists. Use only in well-ventilated areas. Contaminated work clothing should not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Ground/bond container and receiving equipment. Take precautionary measures against static discharges.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

**Incompatible Materials**

Strong oxidizing agents. Acids. Bases.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m <sup>3</sup> (vacated) TWA: 150 ppm (vacated) TWA: 710 mg/m <sup>3</sup> (vacated) STEL: 200 ppm (vacated) STEL: 950 mg/m <sup>3</sup>	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m <sup>3</sup> STEL: 200 ppm STEL: 950 mg/m <sup>3</sup>
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m <sup>3</sup> (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m <sup>3</sup> (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m <sup>3</sup>	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m <sup>3</sup> STEL: 300 ppm STEL: 885 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls**

Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**

Avoid contact with eyes.

**Skin and Body Protection**

Wear suitable protective clothing.

**Respiratory Protection**

Ensure adequate ventilation, especially in confined areas.

**General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Not determined
<b>Appearance</b>	Not determined	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	Not available	
<b>Melting Point/Freezing Point</b>	Not determined	
<b>Boiling Point/Boiling Range</b>	> 70 °C / >158 °F	
<b>Flash Point</b>	> 23 °C / > 73 °F	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	Not determined	
<b>Upper Flammability Limits</b>	Not determined	
<b>Lower Flammability Limit</b>	Not determined	
<b>Vapor Pressure</b>	Not determined	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	0.9-1.1	
<b>Water Solubility</b>	Immiscible in water	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	
<b>VOC Content (%)</b>	23.03% (volatile carbon)	
<b>VOC Content</b>	211.83 g/L	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to Avoid

Ignition sources.

### Incompatible Materials

Strong oxidizing agents. Acids. Bases.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Product Information</b>	The following information applies to the ink contained in the marker
<b>Eye Contact</b>	Causes serious eye irritation.
<b>Skin Contact</b>	May cause an allergic skin reaction.
<b>Inhalation</b>	Harmful if inhaled.
<b>Ingestion</b>	Do not taste or swallow.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
n-Butyl acetate 123-86-4	= 10768 mg/kg ( Rat )	> 17600 mg/kg ( Rabbit )	= 391 ppm ( Rat ) 4 h
Methyl ethyl ketone 78-93-3	= 2737 mg/kg ( Rat )	= 6480 mg/kg ( Rabbit )	-

### Information on physical, chemical and toxicological effects

<b>Symptoms</b>	Please see section 4 of this SDS for symptoms.
-----------------	--

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>STOT - single exposure</b>	May cause respiratory irritation. May cause drowsiness or dizziness.

### Numerical measures of toxicity

Not determined

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
n-Butyl acetate 123-86-4	674.7: 72 h Desmodesmus subspicatus mg/L EC50	17 - 19: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Lepomis macrochirus mg/L LC50 static 62: 96 h Leuciscus idus mg/L LC50 static	EC50 = 70.0 mg/L 5 min EC50 = 82.2 mg/L 15 min EC50 = 959 mg/L 18 h EC50 = 98.9 mg/L 30 min	72.8: 24 h Daphnia magna mg/L EC50
Methyl ethyl ketone 78-93-3		3130 - 3320: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 3403 mg/L 30 min EC50 = 3426 mg/L 5 min	520: 48 h Daphnia magna mg/L EC50 5091: 48 h Daphnia magna mg/L EC50 4025 - 6440: 48 h Daphnia magna mg/L EC50 Static

### Persistence/Degradability

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
n-Butyl acetate 123-86-4	1.81
Methyl ethyl ketone 78-93-3	0.29

**Other Adverse Effects**

Not determined

### 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**US EPA Waste Number**

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl ethyl ketone 78-93-3	U159	Included in waste streams: F005, F039	200.0 mg/L regulatory level	U159

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
n-Butyl acetate 123-86-4	Toxic
Methyl ethyl ketone 78-93-3	Toxic Ignitable

### 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT** This product conforms to 49 CFR 173.4 for domestic highway and rail transport only. AIR: Conforms to 49 CFR 173.4.a. Excepted quantity of flammable liquid, see 49 CFR 173.4.a for details and restrictions

**IATA** Excepted quantity of flammable liquid; see IATA Dangerous Goods Regulations for details and restrictions

**IMDG** Excepted quantity of flammable liquids: see IMDG regulations for details and restrictions

## 15. REGULATORY INFORMATION

### International Inventories

Not determined

### US Federal Regulations

#### CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Methyl ethyl ketone 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

#### SARA 313

Not determined

### CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4 ( 30-40 )	5000 lb			X

### US State Regulations

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
n-Butyl acetate 123-86-4	X	X	X
Methyl ethyl ketone 78-93-3	X	X	X

## 16. OTHER INFORMATION

#### NFPA

#### **Health Hazards**

Not determined

#### **Flammability**

Not determined

#### **Instability**

Not determined

#### **Special Hazards**

Not determined

#### HMIS

#### **Health Hazards**

Not determined

#### **Flammability**

Not determined

#### **Physical Hazards**

Not determined

#### **Personal Protection**

Not determined

Issue Date: 17-Sep-2013

Revision Date: 18-Sep-2013

Revision Note: New product

#### Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

**End of Safety Data Sheet**