

# Safety Data Sheet

## PEN-40 and PEN-40IR LabMarker

### 1. Product and company identification

<b>Product name</b>	: PEN-40 and PEN-40IR LabMarker
<b>Synonym</b>	: Not available.
<b>Trade name</b>	: Not available.
<b>Material uses</b>	: Not available.
<b>Code</b>	: Not available.
<b>Supplier/Manufacturer</b>	: Micronova Manufacturing Inc. 3431 West Lomita Boulevard Torrance, CA 90505 Tel : 310-784-6990 Toll free: 888-816-4276 Fax: 310-784-6980 Web: www.micronova-mfg.com Email address of person responsible for sds: info@micronova-mfg.com
<b>MSDS authored by</b>	: KMK Regulatory Services Inc.
<b>In case of emergency</b>	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887

### 2. Hazards identification

This SDS reflects the health, physical and environmental hazards of the liquid ink contained within the pen/ marker. Because of the nature of the finished product i.e. the fact that the ink is held internally within the pen/ marker inside a closed (sealed) container, and given that the liquid is present in a small quantity and is released in very small amounts during normal use, the user of the product and/or the reader of this SDS should consider the potential exposure to the ink to be minimal and controlled during the normal use of the product. Refer to relevant sections of the SDS (7 and 13) for additional information on handling and disposal considerations. To avoid any potential hazard and to minimize the risk of exposure, it is important that the user of the product does NOT open, heat, burn or expose it to a source of intense heat, as this could release the ink.

#### Emergency overview

<b>Physical state</b>	: Liquid. [The product is a marker.]
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>Hazard statements</b>	: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

<b>Inhalation</b>	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.
<b>Eyes</b>	: No known significant effects or critical hazards.

#### Potential chronic health effects

<b>Chronic effects</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.

## 2. Hazards identification

- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin** : No known significant effects or critical hazards.
- Eyes** : No known significant effects or critical hazards.

**Medical conditions aggravated by overexposure** : None known.

### **Medical conditions aggravated by overexposure**

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
Xylene	1330-20-7	5 - 10
Ethylene Glycol Monopropyl Ether	2807-30-9	5 - 10
C.I. Solvent Yellow 14	842-07-9	5 - 10
1-[(2-Methylphenyl)azo]-2-naphthol	2646-17-5	5 - 10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Not applicable under normal conditions of use. In case of contact with eyes, rinse immediately with plenty of water. If irritation occurs, get medical attention.
- Skin contact** : Not applicable under normal conditions of use. Rinse skin with water. If irritation occurs, get medical attention.
- Inhalation** : Not applicable under normal conditions of use. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
- Ingestion** : Not applicable under normal conditions of use. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
  - Suitable** : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>. If individual marker should catch fire, douse with or immerse in plain water.
  - Not suitable** : None known.
- Special exposure hazards** : Emits acrid smoke and toxic fumes under fire conditions.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 5. Fire-fighting measures

**Special remarks on fire hazards** : Not available.

**Special remarks on explosion hazards** : Not available.

## 6. Accidental release measures

**Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods for cleaning up

**Spill** : Broken packages or leaking markers: sweep into closable container to disposal. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

**Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>		<b>TWA (8 hours)</b>			<b>STEL (15 mins)</b>			<b>Ceiling</b>			
<b>Ingredient</b>	<b>List name</b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>Other</b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>Other</b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>Other</b>	<b>Notations</b>
Xylene	US ACGIH 4/2014	100	434	-	150	651	-	-	-	-	
	AB 4/2009	100	434	-	150	651	-	-	-	-	
	BC 7/2013	100	-	-	150	-	-	-	-	-	
	ON 1/2013	100	434	-	150	651	-	-	-	-	
	QC 1/2014	100	434	-	150	651	-	-	-	-	
Ethylene Glycol Monopropyl Ether	ON 1/2013	25	110	-	-	-	-	-	-	-	[1]

[1] Absorbed through skin.

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Engineering measures** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Hygiene measures** : Follow standard laboratory practice.

### Personal protection

**Respiratory** : Not required under normal conditions of use.

## 8. Exposure controls/personal protection

<b>Hands</b>	: Handle using standard laboratory gloves, appropriate for the overall task being conducted.
<b>Eyes</b>	: Not required under normal conditions of use.
<b>Skin</b>	: Standard laboratory coat.
<b>Environmental exposure controls</b>	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
<b>Other protection</b>	: None required.

## 9. Physical and chemical properties

<b>Physical state</b>	: Liquid. [The product is a marker.]
<b>Flash point</b>	: Closed cup: 27.222 to 48.889°C (81 to 120°F)
<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not available.
<b>Flammable limits</b>	: Lower: 1 to 1.26% Upper: 7 to 15.8%
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>Taste</b>	: Not available.
<b>Molecular weight</b>	: Not applicable.
<b>Molecular formula</b>	: Not applicable.
<b>pH</b>	: Not available.
<b>Boiling/condensation point</b>	: 138.33 to 149.44°C (281 to 301°F)
<b>Melting/freezing point</b>	: Not available.
<b>Critical temperature</b>	: Not available.
<b>Relative density</b>	: 0.9
<b>Vapor pressure</b>	: 0.17 to 2.8 kPa (1.3 to 21 mm Hg) [room temperature]
<b>Vapor density</b>	: >1 [Air = 1]
<b>Volatility</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>Evaporation rate</b>	: <1 (Butyl acetate = 1)
<b>SADT</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Ionicity (in water)</b>	: Not available.
<b>Dispersibility properties</b>	: Not available.
<b>Solubility</b>	: Partially soluble in the following materials: cold water and hot water.
<b>Physical/chemical properties comments</b>	: Not available.

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Ethylene Glycol Monopropyl Ether	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	3089 mg/kg	-

### Chronic toxicity

There is no data available.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 µL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Ethylene Glycol Monopropyl Ether	Skin - Moderate irritant	Rabbit	-	100%	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 µg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Guinea pig	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

### Sensitizer

There is no data available.

### Carcinogenicity

#### Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Xylene	-	3	-	A4	-	-
C.I. Solvent Yellow 14	-	3	-	-	-	-
1-[(2-Methylphenyl)azo]-2-naphthol	-	2B	-	-	-	-

### Mutagenicity

There is no data available.

### Teratogenicity

There is no data available.

### Reproductive toxicity

There is no data available.

- Synergistic products** : Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

**Aquatic ecotoxicity**

Product/ingredient name	Result	Species	Exposure
Xylene	Acute IC50 10 mg/L Acute LC50 8500 µg/L Marine water Acute LC50 13400 µg/L Fresh water	Algae Crustaceans - Palaemonetes pugio Fish - Pimephales promelas	72 hours 48 hours 96 hours

**Persistence/degradability**

There is no data available.

**Partition coefficient: n-octanol/water** : Not available.

**Bioconcentration factor** : Not available.

**Mobility** : Not available.

**Toxicity of the products of biodegradation** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Waste stream** : Not available.

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

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>IMDG Class</b>	Not regulated.	-	-	-		-
<b>IATA-DGR Class</b>	Not regulated.	-	-	-		-

PG\* : Packing group

Exemption to the above classification may apply.

**AERG** : Not applicable.

## 15. Regulatory information

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).

### Canadian lists

**Canadian NPRI** : The following components are listed: Xylene; C.I. Solvent Yellow 14

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : Not determined.

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

### International regulations

**International lists** :

- Australia inventory (AICS)**: All components are listed or exempted.
- China inventory (IECSC)**: Not determined.
- Japan inventory**: All components are listed or exempted.
- Korea inventory**: Not determined.
- Malaysia Inventory (EHS Register)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: All components are listed or exempted.
- Taiwan inventory (CSNN)**: Not determined.

**Chemical Weapons** : Not listed

### **Convention List Schedule I Chemicals**

**Chemical Weapons** : Not listed

### **Convention List Schedule II Chemicals**

**Chemical Weapons** : Not listed

### **Convention List Schedule III Chemicals**

## 16. Other information

### History

**Date of issue** : 11/30/2014

**Version** : 1

**Revised Section(s)** : Not applicable.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.