

MATERIAL SAFETY DATA SHEET

Section 1. Identification of the Product / Preparation and the Company

Product Name: F-224 Marking Ink All Colors

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EMERGENCY PHONE NUMBER

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Section 2. Composition / Information on Ingredients

Components	CAS Number	EINECS Number	Weight %	EU Classification
Dipropylene Glycol Methyl Ether	34590-94-8	252-104-2	60-70	R36, R37, R38
1 Methoxy Propanol Acetate	108-65-6	203-603-9	10-20	R10, R36

Please refer to Section 15 for the full text of the EU classification and R phrases.

Section 3. Hazards Identification

Caution: Combustible liquid and vapor. Vapors may cause drowsiness and dizziness.

HMIS: Health H:2 Moderate Flammability F:2 Moderate Reactivity R:1 Slight

WHMIS: B3 Combustible liquid with a flash point greater than 37.8° C but less than 93.3° C.



Section 4. First Aid Measures

INHALATION: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

INGESTION: DO NOT INDUCE VOMITING!
 Rinse mouth thoroughly. Get medical attention.

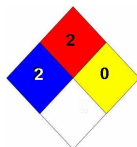
SKIN:

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention if irritation persists after washing.

EYES:

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Section 5. Fire Fighting Measures

**NFPA :**

Health: 2 Flammability: 2 Reactivity: 0

EXTINGUISHING MEDIA:

Use foam; extinguishing powder; dry chemicals; carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES :

Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapors.

Section 6. Accidental Release Measures

SPILL CLEANUP METHODS: Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers.

Section 7. Handling and Storage

USAGE PRECAUTIONS:

Keep away from heat, sparks, and open flame. Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS:

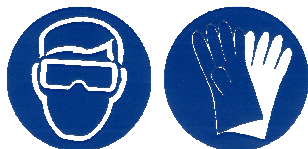
Keep containers tightly closed in a cool, well ventilated place. Do not store with oxidizing agents or acids. Keep in the original container. Avoid direct sunlight.

Section 8. Exposure Controls / Personal Protection

EXPOSURE LIMIT VALUES

Ingredient Name:	CAS No.:	EINCS No.:	List	Type	Value
Dipropylene Glycol Methyl Ether	34590-98-8	252-104-2	ACGIH	TWA	100 ppm
			ACGIH	STEL	150 ppm SKIN
			Alberta OEL	TWA	606 mg/m3 100ppm SKIN
			Alberta OEL	STEL	909 mg/m3 150ppm SKIN
			BC OEL	TWA	100 ppm SKIN
			BC OEL	STEL	150 ppm SKIN
			Ontario OEL	TWA	605 mg/m3 100 ppm
			Ontario OEL	STEL	910 mg/m3 150 ppm
			Québec OEL	TWA	600 mg/m3 100 ppm
			Québec OEL	STEL	900 mg/m3 100 ppm
1 Methoxy Propanol Acetate	108-65-6	203-603-9	BC OEL	TWA	50 ppm
			BC OEL	STEL	75 ppm
			Ontario	TWA	270 mg/m3 50ppm
			Ontario	STEL	910 mg/m3 150 ppm

Consult local authorities for exposure limits.

Personal Protective Equipment

- Ventilation:** All handling to take place in well ventilated area.
- Respirators:** No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL)
- Protective Gloves:** Use protective gloves.
- Eye Protection:** Wear approved safety goggles.
- Other Protection:** Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.
- Hygienic Work Practices** Do not smoke, eat, or drink in work area. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Wash hands before breaks and after work.

Section 9. Physical and Chemical Properties
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Form:	colored liquid
Odor:	sweet, alcohol like
Boiling Point	171° C 340° F
Density/Specific Gravity	0.810 g/ml Temperature (°C) 20
Flash Point	61°-63° C 141°-145° F Method (Setaflash)
Vapor Pressure (mm Hg)	<3mm
Vapor Density (air=1)	>3
Flammable Units (% in air)	LEL 1.3 UEL 13.1
Solubility in water	90%
Evaporation Rate (BU.AC=1)	0.03
Volatile Organic Compound(VOC)	70-80 wt-% Approximately 5.9 Lbs /gal

Section 10. Stability and Reactivity

Stability:	Normally stable
Conditions to avoid:	Avoid heat, flames and other sources of ignition
Incompatibility:	Strong oxidizers
Hazardous decomposition:	None
Hazardous Polymerization:	Will not occur

Section 11. Toxicological Information
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Skin:	This material has a low potential to cause allergic skin reactions. May cause removal of natural fat from the skin.
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Eyes: Irritating to the eyes.

Ingestion: May cause stomach pain or vomiting.

Acute toxicity:

Oral LD-50 :(rat)	5,800 mg/kg
Oral LD-50 :(rabbit)	7,900 mg/kg
Oral LD-50: (dog)	6,200 MG/KG
Inhalation LC-50: (rat)	8 h: 12000 ppm

Inhalation: Inhalation of vapors may lead to nausea, headache, drowsiness and dizziness.

Section 12. Ecological Information

General information: Not regarded as dangerous for the environment. Do not discharge into the drains or waters.

Acute Aquatic Effects:

LC-50, 96 hrs, (fish)	9600 mg/l
IC-50, 72 hrs (algae)	1800 mg/l

Section 13. Disposal Considerations

Disposal methods: Dispose of in accordance with Local Authority requirements. Absorb in vermiculite or dry sand.

Section 14. Transport information

Label for conveyance: None

Ground Transport:
TDG & DOT Not regulated

IMDG: Not regulated

ICAO/IATA Not regulated

Section 15. Regulatory Information

Label for supply:

Xi: Irritant



Risk phrases:

- R-10 Flammable
- R-36 Irritating to eyes
- R-37 Irritating to the respiratory system
- R-38 Irritating to the skin

Safety Phrases:

- S-2 Keep out of the reach of children
- S-24 Avoid contact with skin
- S-25 Avoid contact with eyes

F-224

EPA/TSCA : All ingredients are listed on the EPA-TSCA Inventory

DSL/SEPA: All ingredients are listed on the Canadian DSL

SARA 313: Reportable

Section 16. Other Information

This information is based on our present knowledge. However, it does not constitute a guarantee for any specific product properties.

Carco urges the recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. The use of this product is beyond the control Carco or it's distributor, therefore, no warranty, express or implied, is given.

Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.

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