

CARMEL GROUP INC.

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Perma-Ink (Various Colors)		Revision date 22 Dec 09
Previous revision date 12 Dec 07	Product code FM20004 to FM20009 (See p.6)	Material use Versatile felt-tip marker with an angled chisel tip wide or narrow markings. Fast drying, smear and water resistant. Industrial strength ink.
Manufacturer's Name and issuing location CARMEL GROUP INC. 10220 ARMAND LAVERGNE, MONTRÉAL, QUEBEC, CANADA, H1H 3N4 Tel : 514-270-5377 Fax : 514-270-2025 Internet : www.carmelindustries.com		EMERGENCY PHONE NUMBER CHEMTREC USA 800-424-9300 International 1-703-527-3887

SECTION 2 – CONPOSITION / INFORMATION ON INGREDIENTS

Preparation Hazards and Classification

Hazardous Ingredients	Risk phrases (Sect 16)	Note (Sect 15)	CAS #	Amount	Exposure Limits (ppm)				
					OSHA PEL-TWA	NIOSH REL-TWA	NIOSH REL-STEL	ACGIH TLV-TWA	ACGIH TLV-STEL
Ethanol	R11	1,2,3,4,5,6,7	64-17-5	18-32%	1000	1000	N/AV	1000	N/AV
Dyestuffs, Additive			Blend	15-30%					

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview

May be irritating to respiratory tract, Skin and eyes. This product is not rapidly ignitable.
USE ONLY WITH ADEQUATES VENTILATION.
WASH AFTER HANDING.

SKIN CONTACT	This product may cause mild to moderate skin irritation.
EYE CONTACT	This product may cause mild to moderate eye irritation.
INHALATION	Inhalation of excessive quantities of vapours may cause irritation of the nose, throat and respiratory tract, as well as headache, nausea, dizziness, loss of coordination & fatigue.
INGESTION	Ingestion of this product may cause gastrointestinal irritation, headache, nausea, vomiting, diarrhea, dizziness, loss of coordination and fatigue.
CHRONIC EFFECTS	Chronic overexposure may result in liver abnormalities.
Medical Condition Aggravated by Exposure	Preexisting skin disorders may be aggravated by exposure to this product. Impaired respiratory and liver functions from preexisting medical conditions may be aggravated by exposure to this product.

Potential Health Effects (NFPA Classification)

Fire hazard : 1	Health Hazard : 1	Reactivity : 0	Personal Protection : See Section 8
0 = Minimal 1 = Slight hazard 2= Moderate Hazard 3 = Serious Hazard 4 = Severe Hazard			

Potential Health Effects (HMIS Rating)			
Health : 1	Flammability : 1	Reactivity : 0	
0 = Minimal 1 = Slight hazard 2= Moderate Hazard 3 = Serious Hazard 4 = Severe Hazard			
SECTION 4 – FIRST AID MEASURES			
EYE CONTACT	In case of direct contact, flush eyes with generous amounts of water for at least 15 minutes. Call a physician to attend to the injury if irritation or redness persists.		
SKIN CONTACT	Remove contaminated clothing. Wash affected area thoroughly with soap and water. Call a physician to attend to the injury if irritation or redness persists.		
INHALATION	Remove individual to a well ventilated area for fresh air. If breathing difficulties develop, oxygen should be administered by qualified personnel. Call a physician to attend to the injury.		
INGESTION	Ingestion is an unlikely route of exposure under normal industrial condition. If material is ingested, immediately call a physician.		
ADDITIONAL INFO	None		
SECTION 5 – FIRE FIGHTING MEASURES			
Flash Point 12.8°C / 55°F	Flammable limits LEL 3,3% UEL 19 %	Auto ignition temperature 689°C	
Extinguishing Media	Extinguish with a multipurpose fire fighting CO ₂ , water spray, dry powder or foam.		
Special Fire fighting Procedure	The use of self-contained breathing apparatus is recommended for fire fighters. Water spray may be used to cool the packages exposed to heat near the flame. Avoid spreading burning liquid with water used for cooling purposes.		
Unusual Fire and Explosion Hazards	This product is (OSHA) flammable and may be ignited by heat, sparks, flame or static electricity if marker is broken. Vapors are heavier than air, may travel along the ground and may be moved by ventilation; flashback along vapor trail may occur.		
SECTION 6 – ACCIDENTAL RELEASE MEASURES			
Small Spills	Cover remaining spilled product with dry powder, dry sand, or Vermiculite. Eliminate all source of ignition & ventilate area of spill. The product may be already dry before powders are applied.		
Large Spills	Unlikely to occur in valve format		
SECTION 7 – HANDLING AND STORAGE			
Handling procedures	None special needed. Don't break or burn the marker		
Storage precautions	Normal precaution should be followed. Store in a dry & cool place, out of direct sunlight. Do not store at temperature >50°C/120°F or near spark or open flame.		
SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION			
PERSONAL PROTECTION			
Respiratory protection	None if product is properly used.		
Protective gloves	If marker is frequently used, wear rubber glove to prevent skin contact.		
Eye protection	None if product is properly used.		
Clothing	Standard industrial.		
SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES			
Appearance Marker with a valve	Odor Chalacteristic	Physical state Liquid @ 25°C/77°F	Boiling point 173°F/78°C to 301°F/149°C
Melting point N/Av.	Specific gravity (H₂O=1) 0,825-0,870	Evaporation rate (vs. Butyl Acetate) <0.01 @ 25°C/77°F	Solubility in water Soluble
Flash point 12,8°C	Partitioning coefficient N/Av.	Typical density (lbs/gal) N/Dis.	Percent volatiles N/Dis.
SECTION 10 – STABILITY AND REACTIVITY DATA			
Stability Stable	Hazardous polymerization Will not occur.		
Incompatibility			

Normally a stable product. Decomposition products generated at high temperatures. Reacts strongly with oxidisers.

Hazardous decomposition products

Carbon monoxide can form on incomplete combustion.

SECTION 11 – TOXICOLOGICAL INFORMATION

Carcinogenicity Ethanol has been linked to cancer in humans but is not listed in NTP or IARC carcinogen list of product. However, the ethanol present in this product is unsuitable to drink.	Reproductive Effects Ethanol has been linked to birth defects in humans when ingested. However, the ethanol present in this product is unsuitable to drink.
Irritancy of Material Cause eye & skin irritation.	Sensitizing Capability None known
Mutagenicity / Teratogenicity Not listed	Synergistic Materials None known

SECTION 12 – ECOLOGICAL INFORMATION

Slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13 – DISPOSAL CONSIDERATION

Burn or bury in accordance with local regulations "special" waste empty containers are to be treated as hazardous and not to be reused.

SECTION 14 – TRANSPORT INFORMATION

No data available.

SECTION 15 – REGULATORY INFORMATION

No data available.

SECTION 16 – OTHER INFORMATION

No data available.

N/Av.=NOT AVAILBLE

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CARMEL GROUP INC.

PERMA-INK PRODUCTS

Product code	Product Description
FM20004	Perma-Ink Bleu
FM20008	Perma-Ink Noir
FM20009	Perma-Ink Red