

CARMEL GROUP INC.**MATERIAL SAFETY DATA SHEET****SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Tube Marker (Various Colors)		Revision date June 2010
Previous revision date: None	Product code: PM20301 to PM20326 (See P.5)	Material use: Marks with paint through a press activated ball point tip.
Manufacturer's Name and issuing location CARMEL GROUP INC. 10220 ARMAND LAVERGNE AVE. MONTRÉAL, QUE. H1H 3N4 PHONE : 514-270-5377 FAX : 514-270-2025 INTERNET : www.carmelindustries.com		EMERGENCY PHONE NUMBER 201-804-8228

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS#	Amount	Exposure Limits	
			TLV-TWA	PEL-TWA
N-Propyl Acetate	109-60-4	15-20 %	200 ppm	200 ppm
Light Aromatic Naphtha	64742-95-6	20-25 %	100 ppm	100 ppm
1,2,4 Trimethyl Benzene	95-63-6	1-7 %	100 ppm	100 ppm
Xylene	1330-20-7	1-7 %	100 ppm	100 ppm

SECTION 3 – HAZARD IDENTIFICATION**Emergency Overview**

Flammable Liquid and Vapor. May be irritating to skin, respiratory tract and eyes. May be harmful if absorbed through the skin. May cause central nervous system effects.

SKIN CONTACT	This product may cause mild to moderate skin irritation. Prolonged or repeated exposure may result in contact dermatitis which is characterized by redness, itching, drying and/or cracking of the skin. This product contains hazardous component(s) which may be absorbed through the skin, causing blood, kidney, liver, and spleen damage.
EYE CONTACT	This product may cause mild to moderate eye irritation. Direct contact or excessive exposure to vapors may cause redness, tearing and stinging, blurred vision and eye damage.
INHALATION	Inhalation of excessive quantities of vapors may cause irritation of the nose, throat and respiratory tract, as well as headache, nausea, dizziness, vomiting, loss of coordination and 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, kidney, lung and central nervous system damage.

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 : 2	Health Hazard: 2	Reactivity : 0	Personal Protection : See Section 8
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			
SECTION 5 – FIRE FIGHTING MEASURES			
Flash Point 13-14 Degrees C	Flash Point Category (OSHA) IB - Flammable	Lower Flammability Limit in Air (% by Vol) 1.7	
Extinguishing Media	Extinguish with a multipurpose fire fighting CO ₂ , 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 bottle 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.		
Large Spills	Unlikely to occur in this format.		
SECTION 7 – HANDLING AND STORAGE			
Handling procedures	None special needed. Do not break or burn the tube.		
Storage precautions	Normal precautions should be followed in handling and storage. Store in a cool and dry place. Keep out of strong sunlight. Do not store at temperature : > 122F/50C		
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	Normal working clothes.		
SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES			
Appearance White tube containing different paint colors.	Odor Acetate odor	Physical state of ink liquid @ 25C/77F	Boiling point 215F/102C
Melting point N / Av.	Specific gravity (H ₂ O=1) < 1	Evaporation rate Slower than Butyl Acetate	Solubility in water Insoluble
Vapor Density vs. Air Heavier	Partitioning coefficient N / Av.	Typical density (lbs/gal) N / Av.	Percent volatiles (w/w) 35-40 %

SECTION 10 – STABILITY AND REACTIVITY DATA			
Stability Stable	Hazardous polymerization Will not occur.		
Incompatibility Normally unreactive; however avoid contact with strong oxidizing agent (ex. Peroxides, chlorine), strong acids or bases, sunlight or ultraviolet light, & heat or high temperature.			
Hazardous decomposition products Burning can produce noxious and toxic fumes, and the following combustion products : Oxides of carbon, oxides of nitrogen & other potentially toxic gases.			
SECTION 11 – TOXICOLOGICAL INFORMATION			
Carcinogenicity Contains small amounts of Xylene and Trimethyl Benzene which may cause cancer (based on animal data & depends on duration and level of exposure).	Mutagenicity / Teratogenicity Contains small amounts of Xylene and Trimethyl Benzene which may cause birth defects, or other reproductive harm (based on animal data & depends on duration and level of exposure).		
Irritancy of Material Cause eye & skin irritation.	Sensitizing Capability N / Av.		
Reproductive Effects None known	Synergistic Materials None known		
SECTION 12 – ECOLOGICAL INFORMATION			
Toxic to aquatic organism. Avoid contact with public sewer system.			
SECTION 13 – DISPOSAL CONSIDERATION			
Dispose of in accordance with appropriate Federal, State and local regulation.			
SECTION 14 – TRANSPORT INFORMATION			
Dot Classification N / Av.			
IMDG Classification N / Av.			
UN / NA Hazard No. N / Av.			
ICAO Classification N / Av.			
Other N / Av.			
SECTION 15 – REGULATORY INFORMATION			
SARA Status	This product also contains a chemical which is reportable under the requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.		
	Chemical / Category	CAS #	Concentration (wt%)
	Xylene	1330-20-7	1-7 %
	1,2,4 Trimethyl Benzene	95-63-6	1-7 %

TSCA Status	This product also contains a chemical which is reportable under the export notification requirements of TSCA, Section 12(B).	
	Chemical / Category	CAS #
	N-Propyl Acetate	109-60-4
	Light Aromatic Naphtha	64742-95-6
	1,2,4 Trimethyl Benzene	95-63-6
	Xylene	1330-20-7
OSHA (Occupational Safety and Health Administration) Communication Label for Product	<p>WARNING!</p> <p>FLAMMABLE LIQUID AND VAPOR LIQUID MAY CAUSE SKIN AND EYE IRRITATION LIQUID MAY BE HARMFUL IF ABSORBED THROUGH SKIN VAPOR FROM LIQUID MAY CAUSE RESPIRATORY TRACT IRRITATION VAPOR FROM LIQUID MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS</p> <p>Please refer to the MSDS for more details. Keep away from heat, sparks and flame. Use with adequate ventilation. Use appropriate personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing vapour. Wash thoroughly after handling. FIRST AID : In case of contact, flush eyes or skin with plenty of water. Remove contaminated clothing. Seek medical attention if irritation develops or persists. If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek medical attention. IN CASE OF FIRE : Use a multipurpose fire fighting foam, dry chemical or carbon dioxide. DO NOT REMOVE THIS LABEL.</p>	
EPCRA Status	N / Av.	
HAP Status	N / Av.	
WHMIS Status	Not a controlled material	
CPR Compliance	Not Known	
SECTION 16 – OTHER INFORMATION		
N / Av. = NOT AVAILABLE		
MSDS Originally made by Karl Pinard	Revised by Sean Jmaeff	

The information contained in this document is derived from data supplied to Carmel Industries by the manufacturers or distributors of the raw materials combined to form this product. To the best of our knowledge all hazards have been noted for the intended use of the product and, since Carmel Industries cannot control conditions of use, the end user is obliged to determine the conditions permitting safe use of the product.

CARMEL GROUP INC.
TUBE MARKER PRODUCTS

Product code	Product Description
PM20301	Purple Tube Marker
PM20302	Yellow Tube Marker
PM20303	White Tube Marker
PM20304	Blue Tube Marker
PM20305	Brown Tube Marker
PM20308	Black Tube Marker
PM20309	Red Tube Marker
PM20310	Green Tube Marker
PM20312	Orange Tube Marker
PM20318	Grey Tube Marker
PM20319	Pink Tube Marker
PM20326	Beige Tube Marker