

CARMEL GROUP INC.

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Bulldog Marker (Various Colors)		Revision date 17 Dec 09
Previous revision date 12 Dec 07	Product code FM20204 to FM20209	Material use For wide or medium marking.
Manufacturer's Name and issuing location CARMEL GROUP INC. 10220 ARMAND LAVERGNE, MONTREAL, 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 – COMPOSITION / INFORMATION ON INGREDIENTS

Preparation Hazards and Classification

Canada : This is not a controlled product under WHMIS. This product meets the definition of a "Manufactured article" and is not subject to the regulation of the Hazardous Products Act.

USA : This product is not a hazardous material as defined by 29 CFR1910.1200 the OSHA Hazard Communication Evaluation. This product meets the definition of an "article".

European Communities (EC) : This product is not classified as dangerous according to Directive 1999/45/EC and its amendments. This product contains a small amount of a liquid preparation which contains dangerous ingredients. However there is no expected release of the liquid during use of the product and there is a barrier preventing exposure of the user and the environment.

CHEMICAL NAME	CAS #	%	ELINCS/EINECS NUMBER	CLASSIFICATION
BLACK INK				
ETHANOL	64-17-5	50-100	200-578-6	F; R 11
1-METHOXI-2-PROPANOL	107-98-2	2,5-10	203-539-1	R 10
SOLVENT VIOLET 8		2,5-10		Xn; R 22-41-58
SOLVENT BLACK 7	02/05/05	2,5-10	206-056-4	Xn; R 48-20-21-22
SOLVENT ORANGE 3		2,5-10		Xn; R 22
GREEN INK				
ETHANOL	64-17-5	25-50	200-578-6	F; R 11
1-METHOXI-2-PROPANOL	107-98-2	25-50	203-539-1	R 10
SOLVENT BLUE 4	1328-51-4	2,5-10		Xn; R 22
SOLVEN VIOLET 8	94279-65-9	2,5-10		Xi, N; R 36-51/53

BLUE INK				
ETHANOL	64-17-5	50-100	200-578-6	F; R 11
1-METHOXI-2-PROPANOL	107-98-2	10/01/25	203-539-1	R 10
SOLVENT BLUE 4		< 2,5		Xn; R 22
SOLVENT VIOLET 8		< 2,5		Xn, R-22-41-68

RED INK				
ETHANOL	64-17-5	50-100	200-578-6	F; R 11
1-METHOXI-2-PROPANOL	107-98-2	10/01/25	203-539-1	R 10
BASIC RED 1	26694-69-9	2,5-10	247-906-4	Xn; R 22
SOLVENT ORANGE 3	495-54-5	< 2,5	207-803-7	Xn; R 22

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview (Inks)

Flammable Liquid and Vapour. 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	The Ink containing in this marker 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.
EYE CONTACT	The Ink containing in this marker may cause mild to moderate eye irritation. Direct contact or excessive exposure to vapors may cause redness, tearing and stinging.
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 the ink may cause gastrointestinal irritation, headache, nausea, vomiting, diarrhea, dizziness, loss of coordination and fatigue.
CHRONIC EFFECTS	Chronic overexposure to the ink may result in liver abnormalities.
Medical Condition Aggravated by Exposure	Preexisting skin disorders may be aggravated by exposure to the ink containing in this marker. Impaired respiratory and liver functions from preexisting medical conditions may be aggravated by exposure to the ink containing in this marker.

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			
Ignition temperature 21°C / 70°F	Flash Point Category (OSHA) IB - Flammable	Flammability (inks) 270°C /518°F	
Extinguishing Media	Foam and humid fog.		
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	Not complete combustion can produce CO and CO ₂ Or odangerous products.		
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	Not necessary.		
Eye protection	None if product is properly used.		
Clothing	Standard industrial.		
SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES			
Appearance heavy-duty paint marker with angled chisel tip.	Odour Alcoholic	Physical state liquid @ 25°C/77°F	Boiling point 173°F/78°C to 301°F/149°C
Ignition temperature 21°C/70°F	Flammabilité (Inks) (H ₂ O=1) 270°C	Evaporation rate (vs. Butyl Acetate) N/A	Solubility in water N/D
Solubility in fat N / D	Relative Density (Inks) 0,870g/mL (20°C)	Vapour pressure (Inks) 59,0 hpa (20°C)	Viscosité (Inks) 5 mPas (dynamic 20°C)
SECTION 10 – STABILITY AND REACTIVITY DATA			
Stability Stable	Hazardous polymerization Will not occur.		
Incompatibility None.			
Hazardous decomposition products Combustion can produce CO, CO ₂ and propylene oligomers at low molecular weight.			
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		

Acute Toxicity Data	
Under standard conditions of use no harm to healthy is know.	
SECTION 12 – ECOLOGICAL INFORMATION	
N/A.	
SECTION 13 – DISPOSAL CONSIDERATION	
Waste disposal must be through incineration.	
SECTION 14 – TRANSPORT INFORMATION	
Dot Hazard Classification Not Regulated.	
IATA Classification Not Regulated.	
ICAO Classification Not Regulated.	
IMO Classification Not Regulated.	
TDG Hazard Classification Not Regulated.	
UN / NA Hazard No. Not Regulated.	
Other N/Av.	
SECTION 15 – REGULATORY INFORMATION	
Nothing to report.	
SECTION 16 – OTHER INFORMATION	
R10	Flammable.
R11	Highly flammable.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R 41	Risk of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R48/20/21/22	Harmful : ranger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68	Possible risk of irreversible effects.
N/Av.=NOT AVAILBLE	
MSDS Originally made by Samia Ghezlaoui	Revised by Samia Ghezlaoui

The information contained in this document is derived from data supplied to CARMEL GROUP by the manufacturers or distributors of the raw materials combined to form this product. However, CARMEL GROUP makes no representations as to its completeness or accuracy. To the best of our knowledge all hazards have been noted for the intended use of the product and, since CARMEL GROUP cannot control conditions of use, the end user is obliged to determine the conditions permitting safe use of the product. In no event will CARMEL GROUP be responsible for damage of any nature whatsoever resulting from the use of or reliance upon the information contained herein.

CARMEL GROUP INC.

BULLDOG MARKER PRODUCTS

Product Code

Product Description

FM20204
FM20208
FM20209

Blue Bulldog Marker
Black Bulldog Marker
Red Bulldog Marker