

# CARMEL GROUP INC.

## MATERIAL SAFETY DATA SHEET

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product <b>Bulldog Marker (Various Colors)</b>		Revision date <b>8 Jan 10</b>
Previous revision date <b>12 Dec 07</b>	Product code <b>FM20204 to FM20209</b>	Material use <b>For wide or medium marking.</b>
Manufacturer's Name and issuing location <b>CARMEL GROUP INC. 10220 ARMAND LAVERGNE, MONTREAL, QUEBEC, CANADA, H1H 3N4 Tel : 514-270-5377 Fax : 514-270-2025 Internet : www.carmelindustries.com</b>		<b>EMERGENCY PHONE NUMBER CHEMTREC USA 800-424-9300 International 1-703-527-3887</b>

### 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
<b>BLACK INK</b>				
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
<b>GREEN INK</b>				
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.

<b>SKIN CONTACT</b>	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.
<b>EYE CONTACT</b>	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.
<b>INHALATION</b>	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.
<b>INGESTION</b>	Ingestion of the ink may cause gastrointestinal irritation, headache, nausea, vomiting, diarrhea, dizziness, loss of coordination and fatigue.
<b>CHRONIC EFFECTS</b>	Chronic overexposure to the ink may result in liver abnormalities.
<b>Medical Condition Aggravated by Exposure</b>	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

<b>EYE CONTACT</b>	In case of direct contact, flush eyes with generous amounts of water for at least 15 minutes. <b>Call a physician to attend to the injury if irritation or redness persists.</b>
<b>SKIN CONTACT</b>	Remove contaminated clothing. Wash affected area thoroughly with soap and water. <b>Call a physician to attend to the injury if irritation or redness persists.</b>
<b>INHALATION</b>	Remove individual to a well ventilated area for fresh air. If breathing difficulties develop, oxygen should be administered by qualified personnel. <b>Call a physician to attend to the injury.</b>
<b>INGESTION</b>	Ingestion is an unlikely route of exposure under normal industrial condition. <b>If material is</b>

	<b>ingested, immediately call a physician.</b>		
<b>ADDITIONAL INFO</b>	None		
<b>SECTION 5 – FIRE FIGHTING MEASURES</b>			
<b>Ignition temperature</b> 21°C / 70°F	<b>Flash Point Category (OSHA)</b> IB - Flammable	<b>Flammability (inks)</b> 270°C /518°F	
<b>Extinguishing Media</b>	Foam and humid fog.		
<b>Special Fire fighting Procedure</b>	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.		
<b>Unusual Fire and Explosion Hazards</b>	Not complete combustion can produce CO and CO <sub>2</sub> Or odangerous products.		
<b>SECTION 6 – ACCIDENTAL RELEASE MEASURES</b>			
<b>Small Spills</b>	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.		
<b>Large Spills</b>	Unlikely to occur in valve format		
<b>SECTION 7 – HANDLING AND STORAGE</b>			
<b>Handling procedures</b>	None special needed. Don't break or burn the marker		
<b>Storage precautions</b>	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.		
<b>SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION</b>			
<b>PERSONAL PROTECTION</b>			
<b>Respiratory protection</b>	None if product is properly used.		
<b>Protective gloves</b>	Not necessary.		
<b>Eye protection</b>	None if product is properly used.		
<b>Clothing</b>	Standard industrial.		
<b>SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES</b>			
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 <sub>2</sub> 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)
<b>SECTION 10 – STABILITY AND REACTIVITY DATA</b>			
Stability Stable	Hazardous polymerization Will not occur.		
Incompatibility None.			
Hazardous decomposition products Combustion can produce CO, CO <sub>2</sub> and propylene oligomers at low molecular weight.			
<b>SECTION 11 – TOXICOLOGICAL INFORMATION</b>			
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.	
<b>SECTION 12 – ECOLOGICAL INFORMATION</b>	
N/A.	
<b>SECTION 13 – DISPOSAL CONSIDERATION</b>	
Waste disposal must be through incineration.	
<b>SECTION 14 – TRANSPORT INFORMATION</b>	
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.	
<b>SECTION 15 – REGULATORY INFORMATION</b>	
Nothing to report.	
<b>SECTION 16 – OTHER INFORMATION</b>	
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