according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR) Date of issue: 06/17/2014Revision date: 03/09/2015 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier	
Product form	: Mixture
Trade name	: Pro-Line® HT Paint Markers (white, yellow, black, blue)
Synonyms	: Pro-Line® HT - White, Yellow, Black, Blue

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Marking.

LA-CO Industries, Inc.

1.3. Details of the supplier of the safety data sheet LA-CO Industries, Inc. 1201 Pratt Boulevard Elk Grove Village, IL. 60007-5746 Phone: (847) 956-7600 Fax: (847) 956-9885 E-mail: customer_service@laco.com 1.4. Emergency telephone number

Emergency number

: 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard Not classified

2.2 Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
dimethyl carbonate	(CAS No) 616-38-6	32.69 White 38.59 Yellow 30.56 Black 42.52 Blue	Flam. Liq. 2, H225
Cyclohexanone	(CAS No) 108-94-1	6.99 White 7.88 Yellow 7.24 Black 8.98 Blue	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332

Full text of H-phrases: see section 16

SECTION 4: First aid measures			
4.1. Description of first aid measures			
First-aid measures general	: Never give anything by medical advice/attentior	mouth to an unconscious person. IF exposed or conce	rned: Get
First-aid measures after inhalation	 If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. 		
First-aid measures after skin contact		ower. Remove/Take off immediately all contaminated water. Wash contaminated clothing before reuse.	clothing. Wash
09/03/2015	EN (English)	SDS Ref.: LACO1406001	1/7

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

U U	
First-aid measures after eye contact	: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
4.2. Most important symptoms	and effects, both acute and delayed
Symptoms/injuries after inhalation	: Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/injuries after skin contact	: May cause moderate irritation.
Symptoms/injuries after eye contact	: May cause slight irritation.
Symptoms/injuries after ingestion	: Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

SECTION 5: Firefighting measure	S			
5.1. Extinguishing media				
Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.			
Unsuitable extinguishing media	: None known.			
5.2. Special hazards arising from the substance or mixture				
Fire hazard	: Highly flammable liquid and vapour.			
Explosion hazard	Product is not explosive.			
Reactivity	No dangerous reactions known.			
5.3. Advice for firefighters				
Precautionary measures fire	: Store in dry, cool, well-ventilated area.			
Firefighting instructions	: Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.			
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.			

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures					
General measures	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.				
6.1.1. For non-emergency personnel					
Protective equipment	: Wear suitable protective clothing and gloves. Chemical goggles or safety glasses. In case of inadequate ventilation wear respiratory protection.				
Emergency procedures	: Evacuate unnecessary personnel.				
6.1.2. For emergency responders					
Protective equipment	: Wear suitable protective clothing and gloves. Chemical goggles or safety glasses. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment.				
Emergency procedures	: Ventilate area.				

6.2. Environmental precautions

Contains no substances known to be hazardous to the environment. Do not discharge into drains or the environment.

6.3. Methods and materi	Methods and material for containment and cleaning up				
For containment	: Absorb and/or contain spill with inert material, then place in suitable container.				
Methods for cleaning up	 Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal. 				

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Keep away from sources of ignition - No smoking.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

: Wash hands and other exposed areas with mild soap and water before eating, drinking or Hygiene measures smoking and when leaving work. 7.2. Conditions for safe storage, including any incompatibilities Storage conditions : Keep container tightly closed. Keep away from open flames, hot surfaces and sources of ignition. : Alkali. Oxidizer. acid. Moisture. Incompatible products Incompatible materials : Heat sources. : Keep away from heat, sparks and flame. Heat and ignition sources Prohibitions on mixed storage : Incompatible materials.

7.3. Specific end use(s)

Marking.

SECTION 8: Exposure controls/personal protection

8.1. Control paramete	rs		
Pro-Line® HT Paint Markers (white, yellow, black, blue)			
ACGIH	Not applicable		
OSHA	Not applicable		
dimethyl carbonate (616-38-6)			
ACGIH	Not applicable		
OSHA	Not applicable		

Cyclohexanone (108-94-1)				
ACGIH	ACGIH TWA (mg/m³)	50 mg/m³		
ACGIH	ACGIH TWA (ppm)	20 ppm		
ACGIH	ACGIH STEL (ppm)	50 ppm		
ACGIH	Remark (ACGIH)	Eye & URT irr		
OSHA	OSHA PEL (TWA) (mg/m³)	200 mg/m ³		
OSHA	OSHA PEL (TWA) (ppm)	50 ppm		
Canada (Quebec)	VEMP (mg/m ³)	100 mg/m³		
Canada (Quebec)	VEMP (ppm)	25 ppm		
Canada (Quebec)	Notations and remarks	(Peau)		

8.2. Exposure controls	
Appropriate engineering controls	: Avoid creating mist or spray. Avoid splashing. Provide local exhaust or general room ventilation.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	 None under normal use. Handle in accordance with good industrial hygiene and safety procedures. Wear suitable gloves. rubber.
Eye protection	: No special eye protection equipment recommended under normal conditions of use. Eye protection should only be necessary where liquid could be splashed or sprayed.
Respiratory protection	: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1.	Information on basic physical and chemical properties			
Physica	I state	:	Liquid	
Appeara	ance	:	Solid marker containing liquid colored paint.	
Colour		:	white. Blue. Black. Yellow.	
Odour		:	Solvent.	
Odour t	hreshold	:	No data available	
рН		:	No data available	
Relative	e evaporation rate (butyl acetate=1)	:	No data available	
Melting	point	:	No data available	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

:	No data available
:	90 °C
:	19 °C
:	No data available
:	Product is not explosive.
:	No oxidizing properties.
:	No data available

9.2. Other information VOC content

: 34.4 - 52.3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. **Chemical stability**

Highly flammable liquid and vapour.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid Open flame. Direct sunlight.

Incompatible materials 10.5. Oxidizing agent. Moisture. Alkali. Acid.

10.6. Hazardous decomposition products

May release flammable gases. Thermal decomposition generates : metallic oxides. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	
	1040

: Not classified

dimethyl carbonate (616-38-6)		
LD50 oral rat	> 5000 mg/kg no rats died during the study	
LD50 dermal rabbit	> 2000 mg/kg New Zealand White rabbit; no rabbits died during the study	
LC50 inhalation rat (mg/l)	> 5.36 mg/l/4h no rats died during the study	
Cyclohexanone (108-94-1)		
ATE CLP (dust,mist)	1.500 mg/l/4h	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	: Not classified	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified.	
Cyclohexanone (108-94-1)		
IARC group	3 - Not classifiable	
Reproductive toxicity	: Not classified	
Specific target organ toxicity (single exposure)	: Not classified	

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and	symptoms
Symptoms/injuries after inhalation	: Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/injuries after skin contact	: May cause moderate irritation.
Symptoms/injuries after eye contact	: May cause slight irritation.
Symptoms/injuries after ingestion	: Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.
Likely routes of exposure	: Skin and eye contact

12.1 Toxicity Ecology - general : No ecotoxicological data about this product are known. dimethyl carbonate (616-38-6) NOEC (acute) > 100 mg/l 12.2. Persistence and degradability Pro-Line® HT Paint Markers (white, yellow, black, blue) Persistence and degradability Not established. dimethyl carbonate (616-38-6) Persistence and degradability Not established. dimethyl carbonate (616-38-6) Persistence and degradability Readily biodegradable. Biodegradation 86 % after 28 days 12.3. Bioaccumulative potential
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Biodegradation 86 % after 28 days
12.3. Bioaccumulative potential
Pro-Line® HT Paint Markers (white, yellow, black, blue)
Bioaccumulative potential Not established.
dimethyl carbonate (616-38-6)
Log Pow 0.354 @ 20°C
Bioaccumulative potential Not potentially bioaccumulable.
12.4. Mobility in soil
No additional information available
12.5. Other adverse effects
Other adverse effects : Avoid release to the environment.
SECTION 13: Disposal considerations
13.1 Waste treatment methods
Sewage disposal recommendations : Do not dispose of waste into sewer.
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapours are flammable.
SECTION 14: Transport information
In accordance with DOT and TDG
Transport document description : UN1263 Paint including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base, 3, II
UN-No.(DOT) : UN1263
Proper Shipping Name (DOT) : Paint including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base
Department of Transportation (DOT) Hazard : 3 - Flammable liquid Classes
Classes Packing group (DOT) : II - Medium Danger
Classes Packing group (DOT) : II - Medium Danger ADR
Classes Packing group (DOT) : II - Medium Danger ADR
Classes Packing group (DOT) : II - Medium Danger ADR

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

Transport by sea	
UN-No. (IMDG)	: UN 1263
Proper Shipping Name (IMDG)	: PAINT
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: 11
Air transport	
UN-No.(IATA)	: UN 1263
Proper Shipping Name (IATA)	: PAINT
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: 11

SECTION 15: Regulatory information

15.1. US Federal regulations

Pro-Line® HT Paint Markers (white, yellow, black, blue)		
SARA Section 311/312 Hazard Classes	Fire hazard	
dimethyl carbonate (616-38-6)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Cyclohexanone (108-94-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		

15.2. International regulations

CANADA

dimethyl carbonate (616-38-6)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
Cyclohexanone (108-94-1)	

EU-Regulations

dimethyl carbonate (616-38-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Cyclohexanone (108-94-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Pro-Line® HT Paint Markers (white, yellow, black, blue)

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations

dimethyl carbonate (616-38-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New York - Right to Know List of Hazardous Chemicals

Cyclohexanone (108-94-1)

- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New York Right to Know List of Hazardous Chemicals
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Minnesota Hazardous Substance List

SECTION 16: Other information

Indication of changes

: Removed. WHMIS. 1998.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations according to Canadian Hazardous Products Regulations (HPR)

Data sources	:	ACGIH 2000.
		ESIS (European chemincal Substances Information System; accessed at: <u>http://esis.jrc.ec.europa.eu/index.php?PGM=cla</u> .
		OSHA 29CFR 1910.1200 Hazard Communication Standard.
		European Chemicals Agency (ECHA) Registered Substances list. Accessed at <u>http://echa.europa.eu/</u> .
		Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
		National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.
		REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
		TSCA Chemical Substance Inventory. Accessed at <u>http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html</u> .
Abbreviations and acronyms		ACGIH (American Conference of Governement Industrial Hygienists).
		ATE: Acute Toxicity Estimate.
		CAS (Chemical Abstracts Service) number.
		CLP: Classification, Labelling, Packaging.
		EC50: Environmental Concentration associated with a response by 50% of the test population.
		GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
		LD50: Lethal Dose for 50% of the test population.
		OSHA: Occupational Safety & Health Administration.
		STEL: Short Term Exposure Limits.
		TSCA: Toxic Substances Control Act.
		TWA: Time Weight Average.
Other information	:	None.
NFPA health hazard	:	1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard	:	2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity	:	0 - Normally stable, even under fire exposure conditions, and not reactive with water.

Full text of H-phrases:

1 10/			
	Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
	Flam. Liq. 2	Flammable liquids, Category 2	
	Flam. Liq. 3	Flammable liquids, Category 3	
	H225	Highly flammable liquid and vapour	
	H226	Flammable liquid and vapour	
	H332	Harmful if inhaled	

SDS Prepared by: The Redstone Group, LLC 6397 Emerald Pkwy.

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LACO NA GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product