

Date : 11/15/2011

Version : 1

Material Safety Data Sheet

PRO-WASH™W Water Removable Paint Marker- White, Yellow, Red, Black, Green, Blue

1. Product and company identification

Product name	: PRO-WASH™W Water Removable Paint Marker- White, Yellow, Red, Black, Green, Blue
Material uses	: FOR INDUSTRIAL USE ONLY Temporary marker for metal, aluminum, glass, plastic and other non-porous surfaces.
Code	: 97010 (White), 97011 (Yellow), 97012 (Red), 97013 (Black), 97016 (Green), 97015 (Blue)
Supplier/Manufacturer	: LA-CO Industries, Inc. 1201 Pratt Boulevard Elk Grove Village, IL. 60007-5746
MSDS authored by	: KMK Regulatory Services Inc.
In case of emergency	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887

2. Hazards identification

This SDS reflects the health, physical and environmental hazards of the liquid paint contained within the pen/marker. Because of the nature of the finished product i.e. the fact that the paint is held internally within the pen/marker inside a closed (sealed) container, and given that the liquid is present in a small quantity and is released in very small amounts during normal use, the user of the product and/or the reader of this SDS should consider the potential exposure to the paint to be minimal and controlled during the normal use of the product. Refer to relevant sections of the SDS (7 and 13) for additional information on handling and disposal considerations.

To avoid any potential hazard and to minimize the risk of exposure, it is important that the user of the product does NOT open, heat, burn or expose it to a source of intense heat, as this could release the paint. An Extended-SDS (E-SDS) for this product, that will cover the minimal existing 'risk of exposure' to the chemicals found in this product is under development and will be provided to all users upon availability.

Emergency overview

Physical state	: Liquid. [in cylindrical marker]
Color	: White. Yellow. Red. Black. Blue. Green.
Odor	: Alcohol-like.
Signal word	: WARNING!
Hazard statements	: FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Precautionary measures	: Do not breathe vapor or mist. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Keep container tightly closed. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
<u>Potential acute health effects</u>	
Inhalation	: Irritating to respiratory system.
Ingestion	: No known significant effects or critical hazards.
Skin	: Irritating to skin.
Eyes	: Irritating to eyes.

Potential chronic health effects



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2. Hazards identification

- Chronic effects** : Contains material that can cause target organ damage.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : Contains material which may cause damage to the following organs: blood, the nervous system, the reproductive system, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Ethyl Alcohol	64-17-5	60 - 100
Heptane	142-82-5	1 - 5

Canada

Name	CAS number	%
Ethyl Alcohol	64-17-5	60 - 100
Heptane	142-82-5	1 - 5

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
Ethyl Alcohol	64-17-5	UN1170	60 - 100	3300 ppm	1	3	0	-
Heptane	142-82-5	UN1206	1 - 5	750 ppm	1	3	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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4. First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention if irritation occurs.
- Inhalation** : Move exposed person to fresh air. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : Flammable liquid. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Dispose of via a licensed waste disposal contractor.

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7. Handling and storage

Handling

- Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation.

Storage

- Store in accordance with local regulations.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Ethyl Alcohol	ACGIH TLV (United States, 2/2010). STEL: 1000 ppm 15 minute(s). NIOSH REL (United States, 6/2009). TWA: 1900 mg/m ³ 10 hour(s). TWA: 1000 ppm 10 hour(s). OSHA PEL (United States, 6/2010). TWA: 1900 mg/m ³ 8 hour(s). TWA: 1000 ppm 8 hour(s).
Heptane	ACGIH TLV (United States, 2/2010). STEL: 2050 mg/m ³ 15 minute(s). STEL: 500 ppm 15 minute(s). TWA: 1640 mg/m ³ 8 hour(s). TWA: 400 ppm 8 hour(s). NIOSH REL (United States, 6/2009). CEIL: 1800 mg/m ³ 15 minute(s). CEIL: 440 ppm 15 minute(s). TWA: 350 mg/m ³ 10 hour(s). TWA: 85 ppm 10 hour(s). OSHA PEL (United States, 6/2010). TWA: 2000 mg/m ³ 8 hour(s). TWA: 500 ppm 8 hour(s).

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Ethyl Alcohol	US ACGIH 2/2010	-	-	-	1000	-	-	-	-	-	
	AB 4/2009	1000	1880	-	-	-	-	-	-	-	
	BC 9/2010	-	-	-	1000	-	-	-	-	-	
	ON 7/2010	-	-	-	1000	-	-	-	-	-	
	QC 6/2008	1000	1880	-	-	-	-	-	-	-	
Heptane	US ACGIH 2/2010	400	1640	-	500	2050	-	-	-	-	
	AB 4/2009	400	1640	-	500	2050	-	-	-	-	
	BC 9/2010	400	-	-	500	-	-	-	-	-	
	ON 7/2010	400	1640	-	500	2050	-	-	-	-	
	QC 6/2008	400	1640	-	500	2050	-	-	-	-	

Mexico

Occupational exposure limits

Ingredient	Exposure limits
Ethyl Alcohol	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 1900 mg/m ³ 8 hour(s). LMPE-PPT: 1000 ppm 8 hour(s).
Heptane	NOM-010-STPS (Mexico, 9/2000). Absorbed through skin. LMPE-CT: 2000 mg/m ³ 15 minute(s). LMPE-CT: 500 ppm 15 minute(s). LMPE-PPT: 1600 mg/m ³ 8 hour(s). LMPE-PPT: 400 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

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8. Exposure controls/personal protection

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Engineering measures	: No special ventilation requirements.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.
<u>Personal protection</u>	
Respiratory	: Not required for normal use of the pen/marker. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.
Hands	: Not required for normal use of the pen/marker. Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).
Eyes	: Not required for normal use of the pen/marker. Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields.
Skin	: Not required for normal use of the pen/marker. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and chemical properties

Physical state	: Liquid. [in cylindrical marker]
Flash point	: Closed cup: -2°C (28.4°F)
Burning time	: Not applicable.
Burning rate	: Not applicable.
Auto-ignition temperature	: 398.85°C (749.9°F)
Flammable limits	: Lower: 2.5% Upper: 12% (Propan-2-ol)
Color	: White. Yellow. Red. Black. Blue. Green.
Odor	: Alcohol-like.
Taste	: Not available.
Molecular weight	: Not applicable.
Molecular formula	: Not applicable.
pH	: Not available.
Boiling/condensation point	: 78.35°C (173°F)
Melting/freezing point	: -113.89°C (-173°F)
Critical temperature	: Not available.
Relative density	: 0.788 (Propan-2-ol)
Vapor pressure	: 4 kPa (30 mm Hg) [20°C]
Vapor density	: 2.07 [Air = 1] (Propan-2-ol)
Volatility	: 68.37% (v/v), 51.7% (w/w)
Odor threshold	: Not available.
Evaporation rate	: 1.7 (butyl acetate = 1) (Propan-2-ol)
SADT	: Not available.

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9. Physical and chemical properties

Viscosity	: Not available.
Ionicity (in water)	: Not available.
Dispersibility properties	: Not available.
Solubility	: Not available.
Physical/chemical properties comments	: Not available.

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame).
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethyl Alcohol	LC50 Inhalation Vapor	Rat	124700 mg/m3	4 hours
	LD50 Oral	Rat	7 g/kg	-
Heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m3	4 hours

Chronic toxicity

There is no data available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethyl Alcohol	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Sensitizer

Skin : There is no data available.

Respiratory : There is no data available.

Carcinogenicity

There is no data available.

Mutagenicity

There is no data available.

Teratogenicity

There is no data available.

Reproductive toxicity

There is no data available.

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12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Ethyl Alcohol	Acute EC50 17.921 mg/L Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 ug/L Marine water	Crustaceans - Artemia franchiscana - Larvae	48 hours
	Acute LC50 42000 ug/L Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 0.375 u/L Fresh water	Fish - Gambusia holbrooki - Larvae - 3 days	12 weeks
Heptane	Acute LC50 375000 ug/L Fresh water	Fish - Oreochromis mossambicus - 99 mm - 10 g	96 hours

Persistence/degradability

There is no data available.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

This product is transported by Road or Sea under the Limited Quantity Exemption per TDG, DOT and IMDG. Please refer to Transport of Dangerous Good (TDG) Canadian Transport Regulation (Article 1.17 Limited Quantities Exemption SOR/2008-34) and the United States Department Of Transportation (DOT) 49 CFR (Code Of Federal Regulations), under the applicable hazard class) for full requirements.

15. Regulatory information

United States

HCS Classification

: Flammable liquid
Irritating material
Target organ effects

U.S. Federal regulations

: **TSCA 4(a) final test rules:** Heptane
TSCA 8(a) PAIR: Heptane
TSCA 8(a) IUR Exempt/Partial exemption: Not determined
TSCA 12(b) annual export notification: Heptane
United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Heptane; Ethyl Alcohol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Heptane: Fire hazard; Ethyl Alcohol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

: Not listed

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15. Regulatory information

Clean Air Act Section 602 : Not listed
Class I Substances

Clean Air Act Section 602 : Not listed
Class II Substances

DEA List I Chemicals : Not listed
(Precursor Chemicals)

DEA List II Chemicals : Not listed
(Essential Chemicals)

State regulations

Massachusetts : The following components are listed: Ethyl Alcohol; Heptane

New York : None of the components are listed.

New Jersey : The following components are listed: Ethyl Alcohol; Heptane

Pennsylvania : The following components are listed: Ethyl Alcohol; Heptane

Canada

WHMIS (Canada) : Class B-2: Flammable liquid
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : The following components are listed: Ethyl alcohol; Heptane

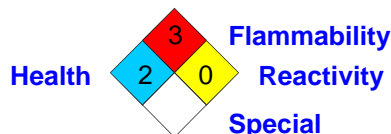
CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Classification :



16. Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Hazardous Material Information System (U.S.A.) : **Health** : 2 * **Flammability** : 3 **Physical hazards** : 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) : **Health** : 2 **Flammability** : 3 **Instability** : 0

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16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue mm/dd/yyyy : 11/15/2011
Version : 1
Revised Section(s) : Not applicable.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.