


MATERIAL SAFETY DATA SHEET

Protective Clothing	NFPA Rating (USA)	EC Classification	WHMIS (Canada)	Transportation
Not Required for Normal Use		Not Dangerous	Not Controlled	Not Regulated

Section 1: Product and Company Information

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

Product Code: 97030 (white), 97031 (yellow), 97032 (red), 97033 (black), 97035 (blue), 97036 (green)

Product Use: Temporary marker for metal, glass, plastic and other non-porous surfaces.

Manufacturer: LA-CO Industries, Inc.
 1201 Pratt Boulevard
 Elk Grove Village, IL.
 60007-5746

Phone Number: (847) 956-7600

Fax: (847) 956-9885

24-hour Emergency: CHEMTREC: (800) 424-9300

Section 2: Composition and Ingredient Information

Hazardous/Dangerous Ingredients For All Colors:

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt.%</u>	<u>EINECS / ELINCS</u>	<u>Symbol</u>	<u>Risk Phrases</u>
Ethanol	64-17-5	45 – 65	200-578-6	F	R11
Heptane	142-82-5	1 – 5	205-563-8	F; Xn; Xi; N	R11-38-50/53-65-67

Color-specific ingredients:

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt.%</u>	<u>EINECS / ELINCS</u>	<u>Symbol</u>	<u>Risk Phrases</u>
Chromium III based dyes (Black only)	Trade Secret	3 - 7	Listed on EINECS/ELINCS	N	R51/53

Note: See Section 8 of this MSDS for exposure limit data for these ingredients.
 See Section 16 for the full text of the R-phrases above.

MATERIAL SAFETY DATA SHEET**Section 3: Hazards Identification****Preparation Hazards and Classification:**

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

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

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.

Appearance, Color and Odor:

Marker containing less than 10 mL free liquid (until the tip is actuated and the liquid wets the nib). Marker is available in white, yellow, red, black, blue and green. Slight alcohol odor.

Primary Route(s) of Exposure:

Normal use of this marker will not result in exposure to hazardous substances. The paint, contained inside the marker has components which are considered hazardous by inhalation of vapors, and skin contact.

Potential Health Effects:

ACUTE (short term): see Section 8 for exposure controls

Inhalation: Inhalation of vapors is not expected with normal use of the marker.

Ingestion: Not an expected route of exposure.

Skin: Normal use of marker will not result in harmful effects. Contact with the paint may cause mild irritation in susceptible persons.

Eye: Not an expected route of exposure.

CHRONIC (long term): see Section 11 for additional toxicological data

Chronic effects are not expected with normal use of the marker.

Medical Conditions

Not available

Aggravated by Exposure:**Section 4: First Aid Measures****Inhalation:**

If symptoms are experienced remove source of contamination or move victim to fresh air. Obtain medical advice.

Eye Contact:

If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the chemical is removed. If irritation persists, obtain medical advice.

Skin Contact:

If irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Ingestion:

If irritation or discomfort occurs, obtain medical advice immediately.

MATERIAL SAFETY DATA SHEET**Section 5: Fire Fighting Measures**

<u>Extinguishing Media:</u>	Carbon dioxide, dry chemical powder, alcohol resistant fire-fighting foams, water spray or fog.
<u>Unusual Fire and Explosion Hazards:</u>	Flammable Liquid. Flashpoint = -2 ± 1 °C (29 ± 2 °F) Sensitivity to Mechanical Impact: Not sensitive Sensitivity to Static Charge: Not sensitive
<u>Fire Fighting Instructions:</u>	Fight fire from a safe distance or protected location. Approach fire from upwind to avoid toxic decomposition products. Self-contained breathing apparatus and protective clothing should be worn.
<u>Hazardous Combustion Products:</u>	Carbon dioxide, carbon monoxide and unidentified organic compounds may be formed during combustion.

Section 6: Accidental Release Measures

<u>Personal Precautions:</u>	Avoid contact with skin and eyes.
<u>Environmental Precautions:</u>	Bulk releases are not anticipated under normal conditions.
<u>Methods for Containment:</u>	Stop the leak if it is safe to do so.
<u>Methods for Clean-up:</u>	Soak up any spilled paint with an inert absorbent material.

Section 7: Handling and Storage

<u>Handling</u>	This product contains a flammable liquid. Do not use near ignition sources (e.g. sparks, open flames, hot surfaces, welding operations). Keep away from extreme heat. Keep marker closed when not in use. Keep away from children.
<u>Storage:</u>	Store in a cool, well-ventilated area, out of direct sunlight and away from heat and ignition sources. Keep markers tightly closed when not in use.

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Section 8: Exposure Controls and Personal Protection

Exposure Limits

<u>Ingredient</u>	<u>ACGIH TLV</u> <u>(8-hr. TWA)</u>	<u>U.S. OSHA PEL</u> <u>(8-hr. TWA)</u>	<u>Ontario (Canada)</u> <u>TWAEV</u>	<u>UK OEL</u> <u>(8-hr. TWA)</u>
Ethanol	1000 ppm	1900 mg/m ³ (1000 ppm)	1900 mg/m ³ (1000 ppm)	1920 mg/m ³ (1000 ppm)
Heptane	400 ppm 500 ppm (STEL)	2000 mg/m ³ (500 ppm)	1635 mg/m ³ (400 ppm) 2045 mg/m ³ (500 ppm) STEV	Not available
Chromium III based dyes (Black only)	0.5 mg/m ³	0.5 mg/m ³	Not available	Not available

**STEL = Short Term Exposure Limit

**STEV = Short Term Exposure Value

Exposure Controls

Engineering Controls: Provide adequate ventilation to keep vapor concentrations below the exposure limits listed above.

Personal Protection:

Respiratory Protection: Not required for normal use.

Skin Protection: Not required for normal use.

Eye Protection: Not required for normal use.

Other Protective

Equipment:

Not required.

Hygiene Measures:

Avoid breathing vapors. Keep container tightly closed when not in use. Keep out of reach of children.

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Section 9: Physical and Chemical Properties

<u>Physical State:</u>	Liquid (Approx. 10 mL)	<u>Vapor Pressure:</u> <u>(mm Hg @ 20°C)</u>	Not available
<u>Appearance:</u>	Valve-actuating tip marker containing liquid in white, yellow, red, black, blue and green. The liquid is absorbed onto the nib when tip of marker is actuated.	<u>Vapor Density:</u> <u>(Air = 1)</u>	Not available
<u>pH:</u>	Not available	<u>Solubility in Water:</u>	Not available
<u>Relative Density:</u> <u>(water = 1)</u>	Not available	<u>Water / Oil distribution coefficient:</u>	Not available
<u>Boiling Point:</u>	Not available	<u>Odor Type:</u>	Not available
<u>Freezing Point:</u>	Not available	<u>Odor Threshold:</u>	Not available
<u>Viscosity:</u>	Not available	<u>Evaporation Rate:</u> <u>(n-Butyl Acetate = 1)</u>	Not available
<u>Oxidizing Properties:</u>	Not available	<u>Auto Ignition Temperature (°C):</u>	Not available
<u>Flash Point and Method:</u>	-2 ± 1°C (29 ± 2°F)	<u>Flammability Limits (%):</u>	Not available
<u>VOC % by volume:</u>	68.37 – 74.78 ± 2 %	<u>VOC % by weight:</u>	51.70 – 65.8 ± 2 %
<u>VOC weight per gallon:</u>	7.48 – 8.93 ± 2 %	<u>VOC as supplied:</u>	4.5301 – 4.9417 pounds per gallon

Section 10: Stability and Reactivity

<u>Stability:</u>	Stable
<u>Conditions to Avoid:</u>	Open flames, sparks, static discharge, heat and other ignition sources.
<u>Incompatible Materials:</u>	Incompatible with oxidizing agents, strong acids, strong alkalies, amines, alkanamines, sodium, potassium, magnesium, aldehydes.
<u>Hazardous Decomposition Products:</u>	Carbon dioxide and carbon monoxide
<u>Possibility of Hazardous Reactions:</u>	Hazardous polymerization will not occur.
<u>Other Reactivity Concerns:</u>	None known

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Section 11: Toxicological Information

Acute Toxicity Data

<u>Ingredient</u>	<u>LD₅₀ Oral</u> (mg/kg)	<u>LD₅₀ Dermal</u> (mg/kg)	<u>LC₅₀ Inhalation</u> (4 hrs.)
Ethanol	7 060 (rat)	Not available	39 000 (mouse)
Heptane	> 15 000 (rat)	Not available	25 000 (rat)
Chromium III based dyes (Black only)	> 5 000 (rat)	Not available	Not available

Chronic Toxicity Data

Carcinogenicity:

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<u>Ingredient</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>
Ethanol	A4	Not listed	Not listed
Heptane	Not listed	Not listed	Not listed
Chromium III based dyes (Black only)	Not available	Not available	Not available

ACGIH: (American Conference of Governmental Industrial Hygienists)

A4 - Not Classifiable as a Human Carcinogen

IARC: (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

Irritation:

Normal use of marker will not result in harmful effects. Ethanol is a mild skin irritant. Heptane is a moderate to severe skin irritant.

Sensitization:

Not available

Neurological Effects:

Not applicable

Teratogenicity:

Not applicable

Reproductive Toxicity:

Not applicable

Mutagenicity (Genetic Effects):

Not applicable

Toxicologically Synergistic Materials:

Not applicable

MATERIAL SAFETY DATA SHEET**Section 12: Ecological Information**

<u>Ecotoxicity:</u>	Chromium III based dyes LC50: 2.0 mg/L 96 hour (carp) 1000 mg/L 24 hour (Daphnia magna)
<u>Mobility:</u>	Not available
<u>Persistence and degradability:</u>	Not available
<u>Bioaccumulative potential:</u>	Not available
<u>Other adverse effects:</u>	Do not release the paint into surface or waste waters and soil.

Section 13: Disposal Considerations

<u>Waste Disposal Method:</u>	Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
<u>USA:</u>	Dispose of in accordance with local, state and federal laws and regulations.
<u>Canada:</u>	Dispose of in accordance with local, provincial and federal laws and regulations.
<u>EC:</u>	Waste must be disposed of in accordance with relevant EC Directives and national, regional and local environmental control regulations. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

Section 14: Transport Information:

<u>U.S. Hazardous Materials Regulation (DOT 49CFR):</u>	Not regulated
<u>Canadian Transportation of Dangerous Goods (TDG):</u>	Not regulated
<u>ADR/RID:</u>	Not regulated
<u>IMDG:</u>	Not regulated
<u>Marine Pollutants:</u>	Not applicable
<u>ICAO/IATA :</u>	Not regulated

MATERIAL SAFETY DATA SHEET**Section 15: Regulatory Information**NFPA Hazard RatingUSA

TSCA Status: All ingredients in the product are listed on the TSCA inventory.

SARA Title III:

Sec. 302/304: None

Sec. 311/312: None

Sec. 313: Chromium

CERCLA RQ: Not applicable

California Prop 65 :

This product contains the following chemicals in trace quantities known to the State of California to cause cancer: Chromium (hexavalent compounds), 1,4-Dioxane, Formaldehyde, Acetaldehyde and Ethylene oxide.

State Right-to-Know**Lists :**

Ethanol and Heptane can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota and Massachusetts.

Chromium compounds can be found on the following state right to know lists: Pennsylvania

Clean Air Act:

This product contains the following Hazardous Air Pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61): Chromium Complex Dyes

Clean Water Act:

This product contains the following priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1) Priority Pollutant List (40 CFR 401.15): Chromium Complex Dyes

Canada

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*.

WHMIS Classification:

Not Controlled

NSNR Status (New Substance Notification Regulations):

The dyes in the black marker (as listed in Section 2) are not listed on the DSL however, the NSNR state that inks in markers are excluded from the definition of a substance. All other ingredients in the product are listed on Canada's Domestic Substances List (DSL).

NPRI Substances (National Pollutant Release Inventory):

None

EC Classification for the Substance/Preparation:**Symbol:**

This product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Risk Phrases:

None

Safety Phrases:

S2: Keep out of reach of children.

MATERIAL SAFETY DATA SHEET**Section 16: Other Information****Full Text of R-phrases
appearing in Section 2:**

R11: Highly Flammable.

R38: Irritating to skin.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65: Harmful: May cause lung damage if swallowed.

R67: Vapors may cause drowsiness and dizziness.

Preparation Information:**Preparation Date:** August 30, 2005**Revision Date:** Not applicable**Revision Summary:** Not applicable**Prepared by:** LEHDER Environmental Services Limited
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www.lehder.com**Phone:** (519) 336-4101**Disclaimer:** While LEHDER Environmental Services Limited believes that the data set forth herein is accurate, as of the date hereof, LEHDER makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation and verification.**Manufacturer Disclaimer:** The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc. makes no representations as to its completeness or accuracy. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.