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Protective Clothing	NFPA Rating (USA)	EC Classification	WHMIS (Canada)	Transportation
Wear gloves if skin contact with the paint is likely		Not Dangerous	Not Controlled	Not Regulated

Section 1: Product and Company Information

Product Name: Valve Action® Paint Marker – Brown, Purple, White, Yellow, Red, Black, Orange, Blue, Green, Gold, Light Green, Pink, Aluminum, Light Blue

Product Code: 96809 (brown), 96817 (purple), 96820 and 96800 (white), 96821 and 96801 (yellow), 96822 and 96802 (red), 96823 and 96803 (black), 96824 and 96807 (orange), 96825 and 96805 (blue), 96826 and 96806 (green), 96827 (gold), 96828 (light green), 96830 (pink), 96835 (light blue), 96832 and 96804 (aluminum)

Product Use: Marker for metal, wood, glass, plastic, rubber, cardboard and paper.

Chemical Family: Mixture

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:

Chemical Name	CAS No.	Wt.%	EINECS / ELINCS	Symbol	Risk Phrases
Solvent naphtha (petroleum)	64742-88-7	20 – 30	265-191-7	Xn	R65
Stoddard Solvent	8052-41-3	10 – 20	232-489-3	T	R45; R65
Ligroine (VM&P Naphtha)	8032-32-4	10 – 30	232-453-7	T	R45; R65
Xylene	1330-20-7	5 – 10	215-535-7	Xn	R10; R20/21; R38
Ethylbenzene	100-41-4	1 – 5	202-849-4	F; Xn	R11; R20

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Section 2: Composition and Ingredient Information, Continued

Color-specific ingredients:

Chemical Name	CAS No.	Wt.%	EINECS / ELINCS	Symbol	Risk Phrases
Copper (Gold marker only)	7440-50-8	10 – 15	231-159-6	None	None
2-methoxy-1-methylethyl acetate (Light Green marker only)	108-65-6	1 – 5	203-603-9	Xi	R10; R36

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.

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 of various colored paint. Organic solvent odor.

Primary Route(s) of Exposure: The paint inside the marker contains 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 be harmful to the skin; may be absorbed through the skin.

Eye: Not an expected route of exposure. Liquid and vapors can irritate the eyes.

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

Normal use of this marker is not expected to result in chronic effects.
Prolonged or repeated contact with the skin may result in defatting and drying of skin and may result in dermatitis.

Chronic overexposure through abuse may cause injury to the kidneys and liver, cause damage to the red blood cells and may cause cancer.

Medical Conditions Aggravated by Exposure: Preexisting skin, eye and respiratory disorders may be aggravated by over-exposure to this product. Impaired central nervous system functions from preexisting disorders may be aggravated by over-exposure to this product.

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Section 4: First Aid Measures

Inhalation: If symptoms are experienced remove source of contamination or move victim to fresh air and 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.

Section 5: Fire Fighting Measures

Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. For large fires, use carbon dioxide, dry chemical powder, alcohol-resistant foam or polymer foam. Firefighting foams are the extinguishing agent of choice for most flammable liquid fires. Use water spray to cool fire-exposed containers.

Unusual Fire and Explosion Hazards: Paint is a Flammable Liquid. Flashpoint = 23°C (73°F)
Sensitivity to mechanical impact: Not available
Sensitivity to static discharge: Vapor may be ignited by a static discharge.

Fire Fighting Instructions: Self-contained breathing apparatus and protective clothing should be worn. Vapors may accumulate and travel to ignition sources distant from the handling site. Remove all unauthorized personnel.

Hazardous Combustion Products: Combustion may produce toxic and irritating gases.

Section 6: Accidental Release Measures

Personal Precautions: Wear protective equipment and ventilate the area.

Environmental Precautions: Prevent the paint from entering sewers or waterways.

Methods for Containment: Stop the leak if it is safe to do so. Contain spilled paint with earth, sand, or absorbent material which does not react with spilled material.

Methods for Clean-up: Shut off or extinguish all sources of ignition. Immediately soak spilled material with water. Soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product.

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Section 7: Handling and Storage

Handling Avoid breathing vapors. Do not ingest. Avoid contact with skin and eyes. Keep away from children. Do not smoke while handling this material.

Storage: Store in a cool, dry area, out of direct sunlight and away from heat and ignition sources. Keep containers tightly closed when not in use.

Section 8: Exposure Controls and Personal Protection

Exposure Limits

Ingredient	ACGIH TLV (8-hr. TWA)	U.S. OSHA PEL (8-hr. TWA)	Ontario (Canada) TWAEV	UK OEL (8-hr. TWA)
Solvent naphtha (petroleum)	None listed	None listed	None listed	Not available
Stoddard Solvent	100 ppm	100 ppm	525 mg/m^3	Not available
Ligroine (VM&P Naphtha)	300 ppm	None listed	None listed	Not available
Xylene	100 ppm 150 ppm STEL	100 ppm 150 ppm STEL	100 ppm (435 mg/m^3) 150 ppm (650 mg/m^3) STEV	100 ppm (441 mg/m^3) 150 ppm STEL, Skin
Ethylbenzene	100 ppm 125 ppm STEL	100 ppm 125 ppm STEL	100 ppm (435 mg/m^3) 125 ppm (540 mg/m^3) STEV	100 ppm (441 mg/m^3) 125 ppm (552 mg/m^3) STEL
Copper (Gold marker only)	1 mg/m^3 (dusts and mists, as Cu)	1 mg/m^3 (dusts and mists - as Cu)	1 mg/m^3 (dusts and mists, as Cu)	1 mg/m^3 2 mg/m^3 STEL (dusts and mists as Cu)
2-methoxy-1-methylethyl acetate (Light Green marker only)	Not established	Not established	50 ppm (270 mg/m^3)	50 ppm (274 mg/m^3), 150 ppm (822 mg/m^3) STEL

**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. NIOSH approved respirator for organic vapors in high vapor concentrations.

Skin Protection: If skin contact is likely wear protective gloves. Butyl rubber protective gloves are best in situations where there may be prolonged contact.

Eye Protection: Not required for normal use.

Other Protective Equipment: Not required.

Hygiene Measures: Avoid breathing vapors. Avoid contact with skin and eyes. Keep container tightly closed when not in use. Keep out of reach of children. Do not smoke while handling this material. Wash hands after handling.

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Section 9: Physical and Chemical Properties

Physical State:	Fluid	**Vapor Pressure: (mm Hg @ 25°C)**	Not available
Appearance:	Brown, purple, white, yellow, red, black, orange, blue, green, gold, light green, pink, light blue	**Vapor Density: (Air = 1)**	Not available
pH:	Not available	**Solubility in Water:**	Insoluble Fat soluble
Relative Density: (water = 1)	<1 kg/L (<8.3 lbs/gal)	**Water / Oil distribution coefficient:**	Not available
Boiling Point:	118°C (244°F) VM&P Naphtha	**Odor Type:**	Organic solvent
Freezing Point:	Melting Point - Not available	**Odor Threshold:**	Not available
Viscosity:	Water thin	**Evaporation Rate: (n-Butyl Acetate = 1)**	Not available
Oxidizing Properties:	Not available	**Auto Ignition Temperature (°C):**	Not available
Flash Point and Method:	23°C (73°F)	**Flammability Limits (%):**	Not available

Section 10: Stability and Reactivity

Stability:	Normally stable.
Conditions to Avoid:	Avoid static charge, sparks, heat, open flames and other ignition sources.
Incompatible Materials:	Avoid contact with oxidizing agents.
Hazardous Decomposition Products:	Carbon monoxide and Carbon dioxide.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Other Reactivity Concerns:	None known

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Section 11: Toxicological Information

Acute Toxicity Data

Ingredient	LD_{50} Oral (mg/kg)	LD_{50} Dermal (mg/kg)	LC_{50} Inhalation (4 hrs.)
Solvent naphtha (petroleum)	Not available	Not available	Not available
Stoddard Solvent	> 5 000 (rat)	> 3 000 (rabbit)	> 5500 mg/m^3 (880 ppm) (rat)
Ligroine (VM&P Naphtha)	Not available	Not available	3 400 ppm (rat)
Xylene	5 251 (mouse)	>1 700 (rabbit)	6 350 ppm (rat)
Ethylbenzene	3 500 (rat)	15 380 (rabbit)	4 000 ppm (rat)
Copper (Gold marker only)	Not available	Not available	Not available
2-methoxy-1-methylethyl acetate (Light Green marker only)	8 532 (rat)	> 5 000 (rabbit)	Not available

Chronic Toxicity Data

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

Ingredient	ACGIH	IARC	NTP
Solvent naphtha (petroleum)	Not listed	Not listed	Not listed
Stoddard Solvent	Not listed	Group 3	Not listed
Ligroine (VM&P Naphtha)	A3	Not listed	Not listed
Xylene	A4	Group 3	Not listed
Ethylbenzene	A3	Group 2B	Not listed
Copper (Gold marker only)	Not listed	Not listed	Not listed
2-methoxy-1-methylethyl acetate (Light Green marker only)	Not listed	Not listed	Not listed

ACGIH: (American Conference of Governmental Industrial Hygienists)
A3 – Confirmed animal carcinogen with unknown relevance to humans.
A4 – Not Classifiable as a Human Carcinogen.
IARC: (International Agency for Research on Cancer)
Group 2B – The agent is possibly carcinogenic to humans.
Group 3 – The agent is not classifiable as to its carcinogenicity in humans.
NTP: (National Toxicity Program)

Irritation: Normal use of marker will not result in harmful effects. Xylenes may be irritating to the skin. 2-methoxy-1-methylethyl acetate may be irritating to the eyes.

Sensitization: Not likely to cause sensitization.

Neurological Effects: Not expected with normal use. Xylenes act as central nervous system depressants when ingested and inhaled.

Teratogenicity: Not expected with normal use. Xylene is considered toxic to developing fetuses.

Reproductive Toxicity: Not available

Mutagenicity (Genetic Effects): Not available

Toxicologically Synergistic Materials: Not available

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Section 12: Ecological Information

Ecotoxicity:	Not available
Mobility:	Not available
Persistence and degradability:	Not available
Bioaccumulative potential:	Not available
Other adverse effects:	Not available

Section 13: Disposal Considerations

Waste Disposal Method:	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. Spent markers are considered “empty” of fluid.
USA:	Dispose of in accordance with local, state and federal laws and regulations. Xylenes RCRA Waste No. U239.
Canada:	Dispose of in accordance with local, provincial and federal laws and regulations.
EC:	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.S. Hazardous Materials Regulation (DOT 49CFR)	Not regulated
Canadian Transportation of Dangerous Goods (TDG)	Not regulated
ADR/RID:	Not regulated
IMDG:	Not regulated
Marine Pollutants:	Not applicable
ICAO/IATA :	Not regulated

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Section 15: Regulatory Information

NFPA Hazard Rating

USA

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

SARA Title III:

Sec. 302/304: None
Sec: 311/312: Flammable
Sec. 313: Xylenes, Ethylbenzene, Copper
CERCLA RQ Xylenes 100 lb, Ethylbenzene 1 000 lb, Copper 5 000 lb

California Prop 65 : This product contains the following chemicals known to the State of California to cause cancer: Ethylbenzene

State Right-to-Know Lists : Xylene, Ethylbenzene and Stoddard Solvent can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.
Ligroine can be found on the following state right to know lists: New Jersey, Pennsylvania.

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): All ingredients in the product are listed, as required, on Canada's Domestic Substances List (DSL).

NPRI Substances (National Pollutant Release Inventory): Xylene, Ethylbenzene, Copper

EC Classification for the 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.

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Section 16: Other Information

Full Text of R-phrases appearing in Section 2:

R10: Flammable
R11: Highly flammable
R20: Harmful by inhalation
R20/21: Harmful by inhalation and in contact with skin
R36: Irritating to eyes
R38: Irritating to skin
R45: May cause cancer
R65: May cause lung damage if swallowed

Preparation Information:

Preparation Date: March 4, 2005

Revision Date: November 1, 2005

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Prepared by:

LEHDER Environmental Services Limited
704 Mara Street, Suite 210, Pt. Edward, ON
N7V 1X4
www.lehder.com

Phone: (519) 336-4101

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