MATERIAL SAFETY DATA SHEET

CHROMATE INDUSTRIAL CORPORATION®
100 DaVinci Drive, Bohemia, New York 11716 • 888-567-2206 • www.chromate.com

FOR CHEMICAL EMERGENCY
Call Chemtrec day/night:
1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Valve Action Paint Marker – Black
RED LION PART NUMBER: 28407
PRODUCT TYPE: Paint Product
CHEMICAL FAMILY: N/A

DATE PREPARED: 11/7/01

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2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	% BY WEIGHT	OSHA PEL	ACGIH TWA	STEL	CAS #
VM&P Naphtha	10 - 25	N/D	N/D	N/D	64742-89-8
Xylol (Xylene)[1,3,4,5]	1 - 10	100 ppm	100 ppm	150 ppm	1330-20-7
Mineral Spirits*	30 - 45	N/D	N/D	N/D	64742-88-7
High Boiling Aliphatic Hydrocarbon*	1 - 5	N/D	N/D	N/D	64742-88-7
Ethyl Benzene[1,3,4,5,6]	0.1 - 1	100 ppm	100 ppm	125 ppm	100-41-4
Titanium Dioxide Pigment	15 - 20	10 mg/cu.m Total Dust	10 mg/cu.m Total Dust	N/D	13464-67-7

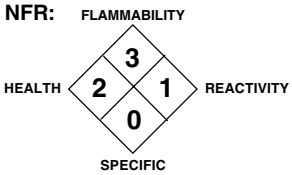
*Stoddard Solvent as guide

3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Skin, Eyes, Ingestion, Inhalation
EMERGENCY OVERVIEW: Harmful or fatal if swallowed. Call physician immediately. Flammable. Use in well-ventlated areas. Keep out of reach of children. For industrial use only.
EFFECTS OF OVEREXPOSURE:
INHALATION: Vapors or mist may cause irritation to the throat, mucous membranes and upper respiratory tract. Inhalation overexposure can lead to central nervous system depression producing effects such as headache, nausea, dizziness and loss of consciousness.
INGESTION: May result in vomiting. Aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities in the lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage.
SKIN CONTACT: Prolonged and repeated liquid contact may cause defatting and drying of skin, which may result in skin irritation and dermatitis.
EYE CONTACT: Short term liquid or vapor contact may result in slight eye irritation. Prolonged or repeated contact may be more irritating.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not determined

HAZARD RATINGS

NFR:



HMIS:

4. FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES:
INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
INGESTION: Do not induce vomiting. Get medical attention. **Never give anything by mouth to an unconscious or convulsing person.**
SKIN CONTACT: Remove any contaminated clothing and wash skin with soap and water thoroughly. If irritation persists, get medical attention.
EYE CONTACT: Wash immediately with plenty of water for 15 minutes while holding eyelids open. Call a physician.

5. FIRE FIGHTING MEASURES

FLASH POINT: 73°F to 95°F (23°C to 35°C) (SFCC) **FLAMMABLE LIMITS: LEL** 1.0% **UEL** 7.0%
EXTINGUISHING MEDIA: Alcohol resistant foam, carbon dioxide, dry chemical
HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds.
FIRE FIGHTING PROCEDURES: CAUTION: Flammable. A stream of water could spread fire. Avoid breathing vapors. Water spray may be ineffective. Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. If water is used, fog nozzles are preferred. Keep personnel removed and upwind of any fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
UNUSUAL FIRE AND EXPLOSION HAZARDS: Cool fire exposed containers with water spray (fog). Vapors may travel a considerable distance to ignition source and flash back. Product may float and be re-ignited at water's surface. Overexposure to decomposition products may cause a health hazard.

6. ACCIDENTIAL RELEASE MEASURES

SPILLS OR LEAKS: Use recommended personal protective equipment (see Section 8). **Small Spill:** Take up spill with absorbent material and place in non-leaking container. Seal container for proper disposal. **Large Spill:** CAUTION! Flammable. Contain spilled product by diking. Eliminate all possible ignition sources. Provide adequate ventilation. Equip responders with appropriate personal protection equipment. Take up spill with absorbent material and place in non-leaking container. Seal container for proper disposal.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS: Read all label cautions. Handle as a flammable liquid. Do not drop container. Use recommended personal protective equipment (see Section 8). Wash thoroughly after handling.
STORAGE REQUIREMENTS: Store away from ignition sources, in a cool, well ventilated area. Store away from incompatible chemicals (see Section 10).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY: Avoid prolonged or repeated breathing of vapors, mists, and/or dusts. If exposure may or does exceed occupational exposure limits (see Section 2) use a NIOSH-approved respirator to prevent overexposure. In accordance with 29 CFR 191.134 use either an atmosphere supplying respirator or an air purifying respirator with appropriate chemical/mechanical filters.
SKIN PROTECTION: Use impervious gloves. Use clean protective body-covering clothing as needed to minimize contact with clothing and skin.
EYE PROTECTION: Where contact with the eyes is likely, use chemical goggles. Use a face shield as needed.
OTHER EQUIPMENT: Eye wash and safety shower.
ENGINEERING CONTROLS: If the product is used in a confined area, provide sufficient mechanical (general or local exhaust) ventilation to maintain exposure below TLV's. Heavy solvent vapors should be removed from the lower levels of area and all ignition sources (non-explosion proof equipment) should be eliminated if flammable mixtures will be encountered.
ADMINISTRATIVE CONTROLS: Users of this product must be properly trained and qualified in its use.
OTHER INFORMATION: No food or beverage should be consumed in the work area. Wash thoroughly before eating, drinking or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Paint/Liquid
VOLUME: 10 grams net ink weight per marker
ODOR: Paint-like odor **ODOR THRESHOLD (ppm):** N/D
SPECIFIC GRAVITY (H_2O=1): 1
pH @ 0.0%: N/A **MELTING POINT:** N/A
BOILING POINT: 245 - 494°F (118-207°C)
VAPOR PRESSURE (mm Hg at 20°C): 2.5 to 5.0 mm Hg (calc.)
VAPOR DENSITY (Air = 1): Heavier than air
EVAPORATION RATE (n-BuAc=1): Slower than ethyl ether
SOLUBILITY IN WATER: Nil **SOLUBILITY IN FAT:** Soluble
COEFFICIENT OF WATER/OIL SOLUBILITY: <1
PARTITION COEFFICIENT (N-OCTANOL/WATER): >1
VOLATILE ORGANIC COMPOUNDS (VOCS): 43-80% (w/w), N/D % (v/v), 3.6-6.7 lbs./gal.

10. STABILITY AND REACTIVITY

STABILITY: Stable **CONDITIONS TO AVOID:** Contact with heat, sparks, hot surfaces, open flames and other ignition sources.
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBILITY (CHEMICALS TO AVOID): Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS (NON-THERMAL): None known.

11. TOXICOLOGICAL INFORMATION

EYE: Irritant **SKIN:** Irritant **INGESTION:** No data available. **INHALATION:** Irritant
SUBCHRONIC: No data available.
CHRONIC EFFECTS: Reports of animal studies involving prolonged and repeated inhalation exposures to light hydrocarbon vapors have shown possible effects to the liver, kidneys and lungs. The relevance of these effects to man in unknown.
CARCINOGENICITY:
ACGIH: Carbon Black has been identified by other sources as a suspected or confirmed human carcinogen.
IARC: Carbon Black is not classified as a human carcinogen (Group 3); human evidence is inadequate; animal evidence is inadequate. Ethyl Benzene is an IARC Group 2B – Possible carcinogen.
TARGET ORGAN EFFECTS: Reports of animal studies involving prolonged and repeated inhalation exposure to light hydrocarbon vapors have shown possible effects to the liver, kidneys and lungs. The relevance of these effects to man is unknown.
TERATOLOGY: Not applicable **REPRODUCTION:** Not applicable **MUTAGENICITY:** Not applicable
Further hazard information, if applicable, may be found in Section 3. Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

12. ECOLOGICAL INFORMATION

MOBILITY: Not Determined
DEGRADABILITY: Not Determined
ACCUMULATION: Not Determined
ECOTOXICITY: Not Determined
OTHER ADVERSE EFFECTS: Not Determined

13. DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS: No data available.
WASTE DISPOSAL METHOD: Dispose of in accordance applicable regulations.

14. TRANSPORT INFORMATION

D.O.T. (U.S.): Consumer Commodity ORM-D (less than 30 kg gross package weight). Flammable liquids, n.o.s., Hazard class 3, UN No. 1993, Packaging group III (greater than 30 kg gross package weight).
TDG (Canada): Consumer Commodity ORM-D (less than 30 kg gross package weight). Flammable liquids, n.o.s., Hazard class 3, UN No. 1933, Packaging group III (greater than 30 kg gross package weight).
International Maritime Organization (IMO): Exempt (<0.5 l/marker)
International Air Transport Association (IATA): Flammable liquids, n.o.s., UN No. 1993
ADR: Un 1263; Class 3; Item 31°(c); Hazard Identification No: 30. CEFIC Tremcard is not applicable.
ICAO: Not determined.
Australian Code for the transport of Dangerous Goods – Dangerous Goods Class and Subsidiary Risk: Not Determined

N/D — NOT DETERMINED N/A — NOT APPLICABLE N/R — NOT REGULATED

Conforms to 29 CFR 1910.1200, OSHA
ANSI Z129.1 - 1988 American National Standard for Hazardous Industrial Chemicals

15. REGULATORY INFORMATION

FOOTNOTES FOR SECTION 2:

1. Subject to the reporting requirements of SARA Title III, Section 313.
2. Appears on the California Safe Drinking Water and Toxic Enforcement Act (Prop. 65) Substances List.
3. Appears on the Massachusetts Substances List.
4. Appears on the New Jersey Right-to-Know Hazardous Substances List.
5. Appears on the Pennsylvania Hazardous Substances List.
6. Appears on the Canadian WHMIS Ingredient Disclosure List.

U.S.A.

OSHA HAZARD STATUS: This product is considered to be hazardous as defined by the U.S. OSHA HCS (29 CFR 1910.1200).
EPA SARA SEC. 311/312 HAZARD CATEGORIES: Immediate (Acute) Health Hazard, Fire Hazard.
TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.

CANADA

WHMIS STATUS: This product is considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.
WHMIS RATING: D-1B, B-2
WHMIS RISK PHRASES: None required on containers of 100 ml or less per CPR, Section 19(1)(a)-(d).
WHMIS PRECAUTIONARY STATEMENTS: None required on containers of 100 ml or less per CPR, Section 19(1)(a)-(d).
DOMESTIC SUBSTANCES LIST (DSL): All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

E.U.

EUROPEAN INVENTORY OF EXISTING CHEMICAL SUBSTANCES (EINECS): All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).
CATEGORIES OF DANGER (LABELING INFORMATION): Flammable (F), Harmful (Xn)
RISK (R) PHRASES: Not required per regulation 9(7) and 9(8) of CHIP.
SAFETY (S) PHRASES: Not required per regulation 9(7) and 9(8) of CHIP.

AUSTRALIA

WORKSAFE AUSTRALIA STATUS: This product is classified as hazardous according to criteria of Worksafe Australia.
HAZCHEM CODE: Not determined
POISONS SCHEDULE NUMBER: Not determined

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, the British CHIP2 regulation 6, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

16. OTHER INFORMATION

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in this MSDS. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.