



# MATERIAL SAFETY DATA SHEET

**CHROMATE INDUSTRIAL CORPORATION®**

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**FOR CHEMICAL  
EMERGENCY**

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## SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** RED LION CITRUS SMOOTH

GRAFFITI REMOVER

**PART NUMBER:** 74026

**PRODUCT TYPE:** CLEANER

**DATE PREPARED:** March 18, 2009

CHROMATE INDUSTRIAL CORPORATION

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**HAZARD RATINGS / NFPA RATINGS:**

**FIRE:** 3

**PHYSICAL DATA:** 0

**HEALTH:** 2

**PPE:** --

## SECTION 2 – HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW

**WARNING:** EYE AND SKIN IRRITANT.

May cause sensitization by skin contact.

**FLAMMABLE LIQUID:** May release vapors that form flammable mixtures at or above the flash point. Containers may explode when heated.

### POTENTIAL SHORT TERM HEALTH EFFECTS

**Routes of Exposure:** Eye, Skin contact, Skin absorption, Inhalation, Ingestion.

**Eyes:** Causes irritation.

**Skin:** May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material. This product may be harmful if it is absorbed through the skin.

**Inhalation:** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Target Organs:** Blood. Eyes. Kidney. Liver. Respiratory system. Skin. Based on published data, if contact is repeated and prolonged, monoethanolamine may cause liver and kidney damage. These effects have not been observed in humans.

**CHRONIC EFFECTS:** This product may be harmful if it is absorbed through the skin. Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

**Signs and Symptoms:** Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Symptoms of Over-Exposure:** May be headache, dizziness, tiredness, nausea and vomiting.

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

| INGREDIENT(S)     | CAS #       | PERCENT |
|-------------------|-------------|---------|
| DIACETONE ALCOHOL | 123-42-2    | 30 - 60 |
| ARYL ALCOHOL      | HMIRC# 7216 | 15 - 40 |
| D-LIMONENE        | 5989-27-5   | 10 - 30 |
| MONOETHANOLAMINE  | 141-43-5    | 1 - 5   |

**COMPOSITION COMMENTS:** This product has been granted a trade secret exemption.

The filing date associated with this trade secret exemption is January 17, 2008.

**SECTION 4 – FIRST AID MEASURES****FIRST AID PROCEDURES**

**Eye Contact:** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

**Skin Contact:** Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

**Inhalation:** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.

**Ingestion:** *DO NOT INDUCE VOMITING.* Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

**NOTES TO PHYSICIAN:** Symptoms may be delayed.

**General Advice:** Keep away from sources of ignition. No smoking. Avoid contact with eyes and skin. Keep out of reach of children. Immediate medical attention is required. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. If you feel unwell, seek medical advice (show the label where possible).

**SECTION 5 – FIRE-FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:** Flammable by WHMIS/OSHA criteria. Vapors may travel to a source of ignition and flash back. Containers may explode when heated.

**EXTINGUISHING MEDIA:**

**Suitable Extinguishing Media:** Carbon dioxide. Alcohol foam. Water spray. Dry chemical. Water Fog. Polymer foam.

**Unsuitable Extinguishing Media:** N/A

**PROTECTION OF FIRE-FIGHTERS:**

**Specific Hazards Arising from the Chemical:** N/A

**Protective Equipment for Fire-Fighters:** Firefighters should wear full protective clothing including self contained breathing apparatus.

**HAZARDOUS COMBUSTION PRODUCTS:** *May include and are not limited to:* Oxides of carbon. Oxides of nitrogen.

**EXPLOSION DATA:**

**Sensitivity to Mechanical Impact:** N/A

**Sensitivity to Static Discharge:** N/A

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:** Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and up-wind of spill/leak.

**Methods for Containment:** Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift.

**Methods for Cleaning Up:** Before attempting clean up, refer to hazard data given above.

*Small Spills:* Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

*Large Spills:* Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water.

**SECTION 7 – HANDLING AND STORAGE**

**HANDLING MATERIAL:** Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.

**STORAGE:** *KEEP OUT OF REACH OF CHILDREN.*

Do not store at temperatures above 120°F (49°C). Store in a closed container away from incompatible materials.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMITS

#### INGREDIENT(S)

ARYL ALCOHOL  
DIACETONE ALCOHOL  
D-LIMONENE  
MONOETHANOLAMINE

#### EXPOSURE LIMITS

**ACGIH-TLV:** N/E  
**OSHA-PEL:** N/E  
**ACGIH-TLV:** TWA: 50 ppm  
**OSHA-PEL:** TWA: 50 ppm  
**ACGIH-TLV:** N/E  
**OSHA-PEL:** N/E  
**ACGIH-TLV:** TWA: 3 ppm  
STEL: 6 ppm  
**OSHA-PEL:** TWA: 3 ppm

**ENGINEERING CONTROLS:** Provide adequate ventilation. General ventilation normally adequate.

#### PERSONAL PROTECTIVE EQUIPMENT

**Eye / Face Protection:** Wear chemical goggles.

**Hand Protection:** Rubber gloves. Confirm with a reputable supplier first.

**Skin and Body Protection:** As required by employer code.

**Respiratory Protection:** Where exposure guideline levels may be exceeded, use an approved NIOSH-respirator.

**General Hygiene Considerations:** Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink.

Wash hands before breaks and immediately after handling the product.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Yellow

**Form:** Liquid

**Odor Threshold:** N/A

**pH:** 10.1

**Freezing Point:** -61°C (-77.80°F)

**Flash Point:** 28°C (82.40°F) Tag Closed Cup

**Color:** Yellow

**Odor:** Lemon

**Physical State:** Liquid

**Melting Point:** N/A

**Boiling Point:** 64°C (147.20°F)

**Evaporation Rate:** N/A

**FLAMMABILITY LIMITS IN AIR, LOWER, % BY VOLUME:** N/A

**FLAMMABILITY LIMITS IN AIR, UPPER, % BY VOLUME:** N/A

**Vapor Pressure:** N/A

**Specific Gravity:** N/A

**Solubility (H<sub>2</sub>O):** N/A

**VOC (Weight %):** N/A

**Percent Volatile:** N/A

**Vapor Density:** N/A

**Octanol/Water Co-Efficient:** N/A

**Auto-Ignition Temperature:** N/A

**Viscosity:** N/A

## SECTION 10 – STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under recommended storage conditions.

**CONDITIONS TO AVOID:** Do not mix with other chemicals. Avoid high temperatures. Reacts violently with acids. This product may react with oxidizing agents.

**INCOMPATIBLE MATERIALS:** Acids. Oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization does not occur.

## SECTION 11 — TOXICOLOGICAL INFORMATION

### COMPONENT ANALYSIS - LC<sub>50</sub>

| INGREDIENT(S)     | LC <sub>50</sub>             |
|-------------------|------------------------------|
| ARYL ALCOHOL      | 8.8 mg/l/4h rat              |
| DIACETONE ALCOHOL | N/A                          |
| D-LIMONENE        | N/A                          |
| MONOETHANOLAMINE  | 1210 mg/m <sup>3</sup> mouse |

### COMPONENT ANALYSIS - ORAL LD<sub>50</sub>

| INGREDIENT(S)     | LD <sub>50</sub>                 |
|-------------------|----------------------------------|
| ARYL ALCOHOL      | 1230 mg/kg rat                   |
| DIACETONE ALCOHOL | 4000 mg/kg rat                   |
| D-LIMONENE        | 4400 mg/kg rat; 5600 mg/kg mouse |
| MONOETHANOLAMINE  | 1720 mg/kg rat; 700 mg/kg mouse  |

### EFFECTS OF ACUTE EXPOSURE

**EYE:** Causes irritation.

**SKIN:** May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material. This product may be harmful if it is absorbed through the skin.

**INHALATION:** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**INGESTION:** Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**SENSITIZATION:** Contains a potential skin sensitizer.

**CHRONIC EFFECTS:** This product may be harmful if it is absorbed through the skin. Based on published data, if contact is repeated and prolonged, monoethanolamine may cause liver and kidney damage. These effects have not been observed in humans.

**CARCINOGENICITY:** Non-hazardous by WHMIS/OSHA criteria.

**IARC - GROUP 3 (Not Classifiable):**

D-LIMONENE 5989-27-5

Monograph 73 [1999] (overall evaluation downgraded from 2B to 3 with supporting evidence from other data relevant to carcinogenicity and its mechanisms)

**MUTAGENICITY:** Non-hazardous by WHMIS/OSHA criteria.

**REPRODUCTIVE EFFECTS:** Non-hazardous by WHMIS/OSHA criteria.

**TERATOGENICITY:** Non-hazardous by WHMIS/OSHA criteria.

## SECTION 12 — ECOLOGICAL INFORMATION

**ECOTOXICITY:** Components of this product have been identified as having potential environmental concerns.

### ECOTOXICITY - FRESHWATER ALGAE DATA

|                  |              |   |
|------------------|--------------|---|
| ARYL ALCOHOL     | Trade Secret | 3 Hr EC <sub>50</sub> <i>Anabaena variabilis</i> : 35 mg/L      |
| MONOETHANOLAMINE | 141-43-5     | 72 Hr EC <sub>50</sub> <i>Scenedesmus subspicatus</i> : 15 mg/L |

### ECOTOXICITY - FRESHWATER FISH SPECIES DATA

|                   |              |   |
|-------------------|--------------|---|
| ARYL ALCOHOL      | Trade Secret | 96 Hr LC <sub>50</sub> <i>Pimephales promelas</i> : 460 mg/L [static];<br>96 Hr LC <sub>50</sub> <i>Lepomis macrochirus</i> : 10 mg/L [static]  |
| DIACETONE ALCOHOL | 123-42-2     | 96 Hr LC <sub>50</sub> <i>Lepomis macrochirus</i> : 420 mg/L [static]   |
| D-LIMONENE        | 5989-27-5    | 96 Hr LC <sub>50</sub> <i>Pimephales promelas</i> : 702 mg/L [flow-through]   |
| MONOETHANOLAMINE  | 141-43-5     | 96 Hr LC <sub>50</sub> <i>Pimephales promelas</i> : 227 mg/L [flow-through];<br>96 Hr LC <sub>50</sub> <i>Brachydanio rerio</i> : 3684 mg/L [static];<br>96 Hr LC <sub>50</sub> <i>Lepomis macrochirus</i> : 329.16 mg/L [static];<br>96 Hr LC <sub>50</sub> <i>Oncorhynchus mykiss</i> : 150 mg/L [static] |

### ECOTOXICITY - MICROTOX DATA

|                  |              |   |
|------------------|--------------|---|
| ARYL ALCOHOL     | Trade Secret | 5 Min EC <sub>50</sub> <i>Photobacterium phosphoreum</i> : 63.7 mg/L;<br>15 min EC <sub>50</sub> <i>Photobacterium phosphoreum</i> : 63.7 mg/L;<br>30 min EC <sub>50</sub> <i>Photobacterium phosphoreum</i> : 71.4 mg/L;<br>5 min EC <sub>50</sub> <i>Photobacterium phosphoreum</i> : 50 mg/L |
| MONOETHANOLAMINE | 141-43-5     | 30 Min EC <sub>50</sub> <i>Photobacterium phosphoreum</i> : 13.7 mg/L;<br>17 Hr EC <sub>50</sub> <i>Pseudomonas putida</i> : 110 mg/L;<br>2 Hr EC <sub>50</sub> <i>Nitrosomonas</i> : 12200 mg/L  |

### ECOTOXICITY - WATER FLEA DATA

|                   |              |   |
|-------------------|--------------|---|
| ARYL ALCOHOL      | Trade Secret | 48 Hr EC <sub>50</sub> <i>water flea</i> : 23 mg/L    |
| DIACETONE ALCOHOL | 123-42-2     | 48 Hr EC <sub>50</sub> <i>water flea</i> : 8750 mg/L  |
| MONOETHANOLAMINE  | 141-43-5     | 48 Hr EC <sub>50</sub> <i>Daphnia magna</i> : 65 mg/L |

**ENVIRONMENTAL EFFECTS:** N/A

**AQUATIC TOXICITY:** N/A

**PERSISTENCE / DEGRADABILITY:** N/A

**BIOACCUMULATION / ACCUMULATION:** N/A

**PARTITION COEFFICIENT:** N/A

**MOBILITY IN ENVIRONMENTAL MEDIA:** N/A

**CHEMICAL FATE INFORMATION:** N/A

## SECTION 13 — DISPOSAL CONSIDERATIONS

**WASTE CODES:** N/A

**DISPOSAL INSTRUCTIONS:** Dispose in accordance with all applicable regulations.

**WASTE FROM RESIDUES / UNUSED PRODUCTS:** N/A

**CONTAMINATED PACKAGING:** N/A

**SECTION 14 — TRANSPORT INFORMATION****DEPARTMENT OF TRANSPORTATION (DOT)****BASIC SHIPPING REQUIREMENTS**

**Proper Shipping Name:** Flammable liquids, n.o.s. (D-LIMONENE)

**Hazard Class:** 3

**UN Number:** UN1993

**Packing Group:** III

**Additional Information:**

**Special Provisions:** B1, B52, IB3, T4, TP1, TP29

**Packaging Exceptions:** 150

**ERG Number:** 128

**TRANSPORTATION OF DANGEROUS GOODS (TDG)****BASIC SHIPPING REQUIREMENTS**

**Proper Shipping Name:** Flammable liquids, n.o.s. (D-LIMONENE)

**Hazard Class:** 3

**UN Number:** UN1993

**Packing Group:** III

**Additional Information:**

**Special Provisions:** 16

**SECTION 15 — REGULATORY INFORMATION****CANADIAN FEDERAL REGULATIONS**

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.

**CANADA - WHMIS - INGREDIENT DISCLOSURE LIST**

|                   |              |     |
|-------------------|--------------|-----|
| ARYL ALCOHOL      | Trade Secret | 1 % |
| DIACETONE ALCOHOL | 123-42-2     | 1 % |
| D-LIMONENE        | 5989-27-5    | 1 % |
| MONOETHANOLAMINE  | 141-43-5     | 1 % |

**US FEDERAL REGULATIONS**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)**

**29 CFR 1910.1200 Hazardous Chemical:** Yes

**CERCLA (SUPERFUND) REPORTABLE QUANTITY:** Potassium Hydroxide: 1000.0000

Sodium Dodecylbenzene Sulfonate: 1000.0000

**SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA)**

**Hazard Categories:**

|                               |                             |
|-------------------------------|-----------------------------|
| <i>Immediate Hazard</i> - Yes | <i>Delayed Hazard</i> - Yes |
| <i>Fire Hazard</i> - Yes      | <i>Pressure Hazard</i> - No |
| <i>Reactivity Hazard</i> - No |                             |

**SECTION 302 Extremely Hazardous Substance:** No

**SECTION 311 Hazardous Chemical:** Yes

**CLEAN AIR ACT (CAA):** N/A

**CLEAN WATER ACT (CWA):** N/A

**SAFE DRINKING WATER ACT (SDWA):** N/A

**DRUG ENFORCEMENT AGENCY (DEA):** N/A

**FOOD AND DRUG ADMINISTRATION (FDA):** N/A

**SECTION 15 (continued) — REGULATORY INFORMATION**

**WHMIS STATUS:** Controlled

**WHMIS CLASSIFICATION:** Class B - Division 2 - Flammable Liquid, Class D - Division 2B

**WHMIS LABELING:** *FLAMMABLE LIQUID*

**STATE REGULATIONS**

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**U.S. - CALIFORNIA - 8 CCR SECTION 339 - DIRECTOR'S LIST OF HAZARDOUS SUBSTANCES**

|                   |          |         |
|-------------------|----------|---------|
| DIACETONE ALCOHOL | 123-42-2 | Present |
| MONOETHANOLAMINE  | 141-43-5 | Present |

**U.S. - ILLINOIS - TOXIC AIR CONTAMINANTS**

|                  |          |         |
|------------------|----------|---------|
| MONOETHANOLAMINE | 141-43-5 | Present |
|------------------|----------|---------|

**U.S. - MASSACHUSETTS - RIGHT TO KNOW LIST**

|                   |              |         |
|-------------------|--------------|---------|
| ARYL ALCOHOL      | Trade Secret | Present |
| DIACETONE ALCOHOL | 123-42-2     | Present |
| MONOETHANOLAMINE  | 141-43-5     | Present |

**U.S. - MINNESOTA - HAZARDOUS SUBSTANCE LIST**

|                   |              |         |
|-------------------|--------------|---------|
| ARYL ALCOHOL      | Trade Secret | Present |
| DIACETONE ALCOHOL | 123-42-2     | Present |
| MONOETHANOLAMINE  | 141-43-5     | Present |

**U.S. - NEW JERSEY - RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST**

|                   |              |  |
|-------------------|--------------|--|
| ARYL ALCOHOL      | Trade Secret | sn 2079  |
| DIACETONE ALCOHOL | 123-42-2     | sn 0606  |
| D-LIMONENE        | 5989-27-5    | sn 2643 (flammable, liquid, toxic, flash point less than 23°C);<br>sn 2642 (flammable, liquid, toxic, flash point between 23°C and 61°C);<br>sn 2644 (liquid, toxic); sn 2645 (solid, toxic) |
| MONOETHANOLAMINE  | 141-43-5     | sn 0835  |

**U.S. - PENNSYLVANIA - RTK (RIGHT TO KNOW) LIST**

|                   |              |         |
|-------------------|--------------|---------|
| ARYL ALCOHOL      | Trade Secret | Present |
| DIACETONE ALCOHOL | 123-42-2     | Present |
| MONOETHANOLAMINE  | 141-43-5     | Present |

**U.S. - RHODE ISLAND - HAZARDOUS SUBSTANCE LIST**

|                   |          |                  |
|-------------------|----------|------------------|
| DIACETONE ALCOHOL | 123-42-2 | Toxic            |
| MONOETHANOLAMINE  | 141-43-5 | Toxic; Flammable |

**INVENTORY NAME**

| <b>COUNTRY(S) OR REGION</b> | <b>INVENTORY NAME</b>                         | <b>ON INVENTORY (YES/NO)*</b> |
|-----------------------------|---|-------------------------------|
| CANADA                      | Domestic Substances List (DSL)                | Yes                           |
| CANADA                      | Non-Domestic Substances List (NDSL)           | No                            |
| UNITED STATES & PUERTO RICO | Toxic Substances Control Act (TSCA) Inventory | Yes                           |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

**SECTION 16 — OTHER INFORMATION**

**DISCLAIMER:** Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.