

**JELMAR**  
**MATERIAL SAFETY DATA SHEET**  
**CLR CALCIUM LIME & RUST REMOVER**  
**ENHANCED FORMULA - DfE**

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

**Manufacturer:** Jelmar, LLC  
**Address:** 5550 W. Touhy Ave.  
 Skokie, IL 60077

**Emergency Phone Number:** 1(800) 323-5497 (USA)  
 Monday – Friday 8:30 A.M. – 4:30 P.M. CST  
**Emergency Contact:** Chemtrec 1(800) 424-9300

**Product Name:** CLR- Calcium Lime & Rust Remover (Enhanced Formula) - DfE  
**MSDS ID:** 540910  
**Chemical Family:** Aqueous Acidic Cleaner  
**Formula:** Proprietary Mixture

**SECTION 2 – HAZARDS IDENTIFICATION**

**PHYSICAL STATE:** Liquid  
**COLOR:** Crystal clear, lime green  
**ODOR:** Slightly sour

**WARNING OVERVIEW:** Irritating to eyes. Use with adequate ventilation. Avoid breathing mist or dust. Keep container closed when not in use.

**POTENTIAL HEALTH EFFECTS**

**ROUTES OF EXPOSURE:** Eyes. Skin. Inhalation. Ingestion.

**TARGET ORGANS:** No data.

**EYE CONTACT:** Irritation and blurred vision. Effects may vary depending on length of exposure, solution concentration, and first aid measures. Prolonged contact may cause permanent damage.

**SKIN CONTACT:** Prolonged contact may cause dermatitis, and itching.

**INHALATION:** Irritation, breathing difficulties, headaches, dizziness.

**INGESTION:** Oral burns, vomiting, and gastrointestinal disturbance.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO PRODUCT:** Eye, skin, and respiratory disorders.

**CANCER INFORMATION:** This product does not contain >0.10% of the known potential carcinogens listed in NTP, IRAC, or OSHA.

**DO NOT MIX WITH BLEACH, OR ANY OTHER PRODUCT AS TOXIC FUMES MAY RESULT. KEEP OUT OF REACH OF CHILDREN.**

**SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS**

<b><u>Component</u></b>	<b><u>CAS#</u></b>	<b><u>OSHA HAZARD</u></b>	<b><u>% by Weight</u></b>
1. Water	7732-18-5	NO	70-81
2. Lactic Acid	79-33-4	YES	15-20
3. Gluconic Acid	526-95-4	NO	2-4
4. Lauramine Oxide	1643-20-5	NO	1-4
5. Propylene Glycol n-Butyl Ether	5131-66-8	YES	1-2

**SECTION 4 – FIRST AID MEASURES**

**EYE CONTACT:** In case of eye contact, immediately rinse eye thoroughly with plenty of water. Remove contact lenses, and continue rinsing for at least 15 minutes. Get immediate medical attention.

**SKIN CONTACT:** Can be irritating to skin, prolonged contact can be more severe, no adverse effects during normal usage. In case of skin contact, rinse area for at least 15 minutes. Remove contaminated clothing and shoes, wash thoroughly before reuse. Get immediate medical attention if irritation persists.

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**INHALATION:** Not a significant route of exposure. Remove to fresh air. If breathing is difficult, GET MEDICAL ATTENTION IMMEDIATELY.

**INGESTION:** DO NOT induce vomiting. If fully conscious, drink 16 ounces of water. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. NEVER give an unconscious person anything to ingest.

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**SECTION 5 – FIRE FIGHTING MEASURES**

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**FLAMMABILITY:** Not flammable

**FLASH POINT:** None (100° C): Method: TOC

**EXPLOSIVE LIMITS IN AIR:** Not available

**EXTINGUISHING MEDIA:** Not flammable. Use appropriate media for area. Water spray, dry chemical, alcohol foam or carbon dioxide.

**FIRE FIGHTING METHODS:** Evacuate area of personnel. Wear protective NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers. Run-off of large quantities of product from fire control may cause pollution. Contact appropriate agencies.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon Monoxide. Thermal decomposition can lead to irritating gases and vapors.

**FIRE AND EXPLOSION HAZARDS:** None known.

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**SECTION 6 – ACCIDENTAL RELEASES MEASURES**

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**Steps to be taken in Case Material is Released or Spilled:** Avoid contact with skin and eyes

**Small Spill:** No special clean-up procedure is necessary for small (less than 1 gallon) spills. Flush spill area with water. Wear rubber gloves.

**Large Spill:** Use personal protection recommended in Section 8. Isolate area, and deny entry to unnecessary and unprotected personnel. Dam spill, and absorb with earth, sand or similar material. Place in non-leaking containers. Dispose of collected material according to local, state, and federal regulations. Flush residue with large amount of water. Avoid direct discharge to sewers and surface waters.

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**SECTION 7- HANDLING AND STORAGE**

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**STORAGE:** Store in cool, well-ventilated area, away from heat. Keep containers tightly closed. Avoid contact with combustible materials, wood, and organic materials. Store in original container in a secure area away from children and pets.

**HANDLING:** Avoid contact with eyes, skin or clothing. May be harmful or fatal if swallowed. Use with adequate ventilation. Avoid breathing vapors or mist. Do not eat, drink, or smoke in work area. Wash hand thoroughly after use. Consumer size containers (14, 28, and 42 fluid ounces and gallon containers), should be rinsed and recycled. Empty 5gallon containers and 55gallon drums, may contain product residue in form of vapor, dried product, or liquid, and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE THESE CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY.

DO NOT MIX WITH BLEACH, OR ANY OTHER PRODUCTS AS TOXIC FUMES MAY RESULT. KEEP OUT OF REACH OF CHILDREN.

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**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION REQUIREMENT:** Avoid prolonged breathing mists or dusts of this product. Use with adequate ventilation. Do not use in closed or confined spaces.

**RESPIRATORY PROTECTION:** None required during normal household use. If product is used in an industrial setting, respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If mist or dust is present, wear NIOSH-Approved respirator for dusts and mists, NIOSH-Approved self-contained breathing apparatus, NIOSH-Approved full-face piece positive-pressure, air-supplied respirator. DO NOT exceed limits established by respirator manufacturer. Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of product.

**EYE PROTECTION:** Not required during normal household usage. Industrial users wear safety goggles. Do not wear contact lenses. Emergency responders should wear full eye and face protection.

**SKIN PROTECTION:** Rubber gloves with protective cuff. Emergency responders should wear impermeable gloves.

**OTHER PROTECTION:** Emergency responders should wear chemical type (impermeable) protective clothing and footwear where direct contact with chemicals in this product is possible.

**WORK/HYGIENIC PRACTICES:** Wash thoroughly with soap and water after use or handling.

**EXPOSURE GUIDELINES:**

<u>COMPONENT</u>	<u>OSHA</u>		<u>ACGIH</u>	
	<u>PEL</u>	<u>STEL/C</u>	<u>TWA</u>	<u>STEL/C</u>
1. Water	N.E.	N.E.	N.E.	N.E.
2. Lactic Acid	N.E.	N.E.	N.E.	N.E.
3. Gluconic Acid	N.E.	N.E.	N.E.	N.E.
4. Lauramine Oxide	N.E.	N.E.	N.E.	N.E.
5. Propylene Glycol n-Butyl Ether	N.E.	N.E.	N.E.	N.E.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Boiling point:</b>	100° C / 212° F	<b>Specific Gravity:</b>	1.04 – 1.06
<b>Vapor Pressure:</b>	N.D.	<b>Percent Volatiles:</b>	~78.6% (Calculated)
<b>Freezing Point:</b>	N.D.	<b>Evaporation Rate:</b>	N.D. (nBuAc=1)
<b>Melting Point:</b>	N.D.	<b>VOC (Wt%):</b>	<1.5 (Calculated)
<b>Vapor Density (mm Hg):</b>	N.D.	<b>VOC (LBS/GAL):</b>	<0.13 (Calculated)
<b>pH: @20°C</b>	2.10-2.30	<b>Solubility in Water:</b>	100%

**SECTION 10 – STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID:** Avoid elevated temperatures.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents, metals, acids, and bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition can lead to release of irritating gases and vapors and carbon oxides.

**POSSIBILITY OF HAZARDOUS REACTIONS:** No data.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**ACUTE ORAL EFFECTS:** A dose of 5 ml/kg was given to 5 male and 5 female rats and no mortality occurred in 14 days. The acute oral LD<sub>50</sub> was found to be > 5 ml/kg. The product is not toxic by oral ingestion in accordance with FHSA / CPSC Guidelines.

**SKIN:** Not a primary dermal irritant in accordance with FHSA / CPSC Guidelines.

**EYE:** Irritant in accordance with FHSA / CPSC Guidelines.

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**SECTION 12- ECOLOGICAL INFORMATION**

ECOTOXICOLOGICAL INFORMATION: No data available.

CHEMICAL FATE INFORMATION: 28-day biodegradation. The matter is readily biodegradable.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** Dispose of in a permitted hazardous waste management facility following all local, state, and federal regulations.

DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION.

Follow label warnings, since containers may retain some residue of the product.

Processing, use or contamination of this product may change the waste management options. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. State and local disposal regulations may differ from federal disposal regulations.

**SECTION 14 - TRANSPORTATION INFORMATION**

**DOT (Department of Transportation Proper Shipping Name):** Not regulated by DOT.

**Identification Number:** N.A.

**Packaging Group:** N.A.

**UN Number:** N.A.

**TDG Classification:** Not Regulated

**IMDG Classification:** Not Regulated

**IATA Classification:** Passenger – Not Regulated

**WHIMS (Canada):** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by CPR.

**SECTION 15 – REGULATORY INFORMATION**

**FEDERAL REGULATIONS:**

**TSCA INVENTORY STATUS:** All components of this product are listed on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**SARA TITTLE III SECTION 311/312 CATEGORY:**

IMMEDIATE (ACUTE) HEALTH HAZARD:	YES
DELAYED (CHRONIC) HEALTH HAZARD:	YES
FIRE HAZARD:	NO
SUDDEN RELEASE OF PRESSURE:	NO
REACTIVE HAZARD:	NO

**SARA SECTIONS 302/304/313/HAP:**

COMPONENT	RQ (LBS) (1*)	RQ (LBS) (2*)	TPQ (LBS) (3*)	SEC 313 (4*)	HAP (5*)
Water	N.A.	N.A.	N.A.	NO	NO
Lactic Acid	N.A.	N.A.	N.A.	NO	NO
Gluconic Acid	N.A.	N.A.	N.A.	NO	NO
Lauramine Oxide	N.A.	N.A.	N.A.	NO	NO
Propylene Glycol n-Butyl Ether	N.A.	N.A.	N.A.	NO	NO

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REGULATORY AGENCIES

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| *1: CERCLA Reportable Quantity           | *4: SARA 313 Toxic Chemical / Category |
| *2: SARA Reportable Quantity             | *5: U. S. EPA Hazardous Air Pollutant  |
| *3: SARA EHS Threshold Planning Quantity |  |

**INTERNATIONAL CHEMICAL INVENTORY STATUS:**

EUROPEAN UNION (EINECS)	YES
JAPAN (METI)	YES
AUSTRALIA (ACIS)	YES
KOREA (KECL)	YES
CANADA (DSL)	YES
CANADA (NDSL)	NO
PHILIPPINES	YES

**STATES RIGHT TO KNOW:** California, New Jersey, Pennsylvania, Minnesota, Massachusetts, and Wisconsin. None.

The following statement is made in order to comply with the California State Drinking Water Act. California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer and/or to cause birth defects and other reproductive harm.

**SECTION 16 – OTHER INFORMATION**

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**NFPA Rating System:** Health-1 / Flammability-0 / Reactivity-0 / Special Hazard - None

**Precautions to be taken in Handling and Storing:** Avoid exposure to excess heat, and prevent from freezing.

**Other Precautions:** None required.

**MSDS ABBREVIATIONS:**

N. A.:	Not Applicable
N. D.:	Not Determined
N.E.:	Not Established
C:	Ceiling Limit
HAP:	Hazardous Air Pollutant
VOC:	Volatile Organic Compound

**Revision: Formula** **September 2010** **R. A. Gaudreault**

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Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, JELMAR offers no representations as to the completeness or accuracy thereof. Information is provided upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will JELMAR be responsible for damages of any nature whatsoever resulting from use of or reliance upon said information.

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