

MSDS Material Safety Data Sheet

The Blaster Corporation



PB Penetrating Catalyst

MSDS Number: PB - Aerosol

Revision Date: 10/15/10

Page 1 of 6

1

PRODUCT AND COMPANY IDENTIFICATION

Product Name: PB Penetrating Catalyst
Revision Date: 10/15/10
MSDS Number: PB - Aerosol
Common Name: PB Blaster
Product Code: 16-PB, 8-PB, 8-PBS, PBTS, 20-PB, 26-PB, 9-PB

Manufacturer: The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125

(216) 901-5800
(216) 901-5801 fax
www.blasterproducts.com

24 Hour emergency contact: Chemtrec (800) 424-9300

2

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS #	Percent	Exposure Limits
Dinonylphenol ethoxylated phosphated	39464-64-7	0-3%	OSHA (TWA)- N/E ACGIH (TWA)- N/E
Solvent Naphtha, Heavy Aromatic**	64742-94-5	40-50%	OSHA (TWA)- N/E ACGIH (TWA)- N/E
Heavy Petroleum Distillate***	64742-65-0	20-30%	OSHA (TWA)-N/E ACGIH (TLV)- N/E
Hydrotreated Light Distillate	64742-47-8	30-40%	OSHA (TWA)- N/E ACGIH (PEL)- 500 ppm
Carbon Dioxide (propellant)	124-38-9	1-5%	OSHA (TWA) 5000ppm ACGIH (TWA) 5000ppm

** Aromatic Naphtha contains 1-7 % Naphthalene (91-20-3) and 0-1% Pseudocumene (95-63-6)
*** Contains Naphthenic Oil 64742-53-6

3

HAZARDS IDENTIFICATION

Route of Entry: Eyes, skin, inhalation, ingestion
Target Organs:
Inhalation: Inhalation of spray mist may cause irritation to the respiratory tract. May aggravate pre-existing respiratory disorders.
Skin Contact: Repeated or prolonged contact with skin may cause mild irritation and possibly dermatitis. May aggravate pre-existing skin disorders.
Eye Contact: Likely to cause immediate or delayed irritation. Irritation will show as redness and/or swelling of the

MSDS Material Safety Data Sheet

The Blaster Corporation



PB Penetrating Catalyst

MSDS Number: PB - Aerosol

Revision Date: 10/15/10

Page 2 of 6

Ingestion: eyes.
Ingestion may cause irritation to the mouth, esophagus and stomach.

Aerosols: Sudden release of pressure could produce projectiles and atomized combustible liquid.

Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

4 FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Continue to monitor. Get medical attention.

Skin Contact: Remove contaminated clothing immediately! Wash skin with soap and water. If irritation develops, seek medical attention.

Eye Contact: Flush eye(s) with water for 15 minutes. Get medical attention. If eye irritation persists, obtain medical treatment.

Ingestion: Do not induce vomiting! Get medical attention immediately!

5 FIRE FIGHTING MEASURES

Flash point: 150°F (TCC) minimum

Extinguishing Media: Dry chemical, carbon dioxide or foam is recommended. Water may be ineffective for extinguishment, but can be useful in minimizing or dispersing vapors, protecting personnel and cooling containers. If containers are not properly cooled they can rupture in the heat of a fire. Avoid spreading burning liquid with water used for cooling purposes.

Unusual Fire & Expulsion Hazards: Level 3 Aerosols - Contents Under Pressure!

6 ACCIDENTAL RELEASE MEASURES

Eliminate all sources of ignition and ventilate the area. See section 8 for the appropriate personal protection. Aerosol cans should be handled with caution. Sudden release of pressure could produce projectiles and atomized combustible liquid. Leaking aerosol cans should be put into suitable container until the internal pressure has dissipated. Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains. Use suitable absorbents to collect liquid product. Consult regulations for the proper disposal of the container, liquid and absorbents.

7 HANDLING AND STORAGE

Handling Precautions: Use in accordance with good industrial workplace practices. Avoid unnecessary contact. Wash thoroughly after handling. Use with good ventilation.

Storage Requirements: Store in a dry place away from excessive heat. Store containers with lids on and properly labeled.

Do not store at temperatures above 120 degrees F.

MSDS *Material Safety Data Sheet*

The Blaster Corporation



PB Penetrating Catalyst

MSDS Number: PB - Aerosol

Revision Date: 10/15/10

Page 3 of 6

8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
Protective Equipment:

Eye wash stations and emergency showers should be immediately available.

Eyes and Face: Standard safety glasses with splash shields typically offer adequate protection. Where excessive splashing or spraying is possible, a face shield should be used.

Skin and clothing: Excessive contact should be avoided. Neoprene gloves, boots and aprons will provide adequate protection when contact cannot be avoided. Remove and wash any contaminated clothing immediately. Wash thoroughly after handling.

Respiratory: Good general ventilation should be sufficient to control airborne levels. Maintain airborne concentrations below OSHA established exposure limits of ingredients in Section 2. Use a NIOSH approved respirator if ventilation is not adequate to maintain exposures below TLV levels.

Exposure Guidelines/Other:

The Blaster Corporation takes no responsibility for determining what measures are required for personal protection in any specific application. This information should be used with discretion.

9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange viscous oily
Physical State: Liquid
Odor: Heavy aromatic
pH: Not determined
Vapor Pressure: Not determined
Vapor Density: >1 (air = 1)

Boiling Point: 352 F
Freezing/Melting Pt.: Not determined
Solubility: nil
Spec Grav./Density: 0.91 (water = 1)

Heat Value: Not determined
VOC: <50%
Evap. Rate: <1 (NBA = 1)
Bulk Density: Not determined
Octanol: Not applicable
Molecular Weight: Not determined
Particle Size: Not applicable
Softening Point: Not applicable
Viscosity: Not determined
Percent Volatile: Not determined
Sat. Vap. Concentrat.: Not determined
Molecular Formula: Not determined

MSDS Material Safety Data Sheet

The Blaster Corporation



PB Penetrating Catalyst

MSDS Number: PB - Aerosol

Revision Date: 10/15/10

Page 4 of 6

10

STABILITY AND REACTIVITY

Stability:	This product is stable.
Conditions to avoid:	Avoid excessive heat, sources of ignition and excessive water.
Materials to avoid (incompatibility):	Avoid contact with strong oxidizing agents and strong reducing agents (strong acids or bases.) Avoid mixture with water.
Hazardous Decomposition products:	Carbon monoxide, carbon dioxide, and various hydrocarbons.
Hazardous Polymerization:	Will not occur.

11

TOXICOLOGICAL INFORMATION

Hydrotreated Light Distillates 64742-47-8

ACUTE STUDIES

EYE EFFECTS Slight irritation on contact.

SKIN EFFECTS May cause irritation or dermatitis with prolonged and repeated contact.

ACUTE ORAL EFFECTS Tests on similar materials indicate an order of acute oral toxicity.

ACUTE INHALATION EFFECTS Acute toxicity expected on inhalation.

This product is not listed as carcinogenic or a potential carcinogen by the National Toxicology Program, by the I.A.R.C. monographs or by OSHA. Therefore, if the precautions outlined in this bulletin are followed to minimize repeated or prolonged skin contact which could cause irritation, these oils should pose no carcinogenic hazard to humans. Prolonged repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Nevertheless, good industrial hygienic practices are recommended.

Heavy Petroleum Distillate 64742-65-0

Contains: Naphthenic Oil 64742-53-6

INHALATION: Will not produce vapors unless heated to temperatures of ~300 F.°

EYE CONTACT: Irritating, but will not permanently injure eye tissue.

SKIN CONTACT: Prolonged or repeated contact may cause skin irritation.

INGESTION: Small amounts (tablespoonful) swallowed are not likely to cause injury. Larger amounts may cause nausea and vomiting. Consult a physician promptly.

CHRONIC (CANCER) INFORMATION: IARC Monographs state that when laboratory animals are exposed to severely hydrotreated oils, such as these product(s), there is insufficient evidence for cancer. Thus, these oils are Unlabeled in accordance with 29 CFR 1910.1200.

Median Lethal Dose (LD50 LC50) (Species)

Oral: Believed to be >5g/kg (rat); practically non-toxic

Inhalation: Not Determined

Dermal: Believed to be >3 g/kg (rat); practically non-toxic.

Irritation Index Estimation of Irritation (Species).

Skin: Believed to be <0.5/8.0 (rabbit); no appreciable effect

Eyes: Believed to be <15/110 (rabbit); no appreciable effect

Sensitization: Not Available

Other: None

Aromatic Petroleum Distillates 64742-94-5

Over exposure to naphthalene, a minor component in heavy aromatic naphtha may cause skin, eye and respiratory tract irritation, anemia, loss of vision, nervous system effects and kidney and thymus damage. Also exposure to naphthalene has produced "respiratory tract" tumors in laboratory animals. IARC list Naphthalene as Group 2B (possibly carcinogenic to humans).

MSDS Material Safety Data Sheet

The Blaster Corporation



PB Penetrating Catalyst

MSDS Number: PB - Aerosol

Revision Date: 10/15/10

Page 5 of 6

Heavy Aromatic Solvent Naphtha	64742-94-5		
Naphthalene	91-20-3	1-7	OSHA (TWA): 10 ppm ACGIH (TWA): 10 ppm
Pseudocumene	95-63-6	0-1	

Dinonylphenol, ethoxylated, phosphated 39464-64-7

INHALATION: : Irritating

EYE CONTACT: Irritating, but will not permanently injure eye tissue.

SKIN CONTACT: Prolonged or repeated contact may cause skin irritation.

INGESTION: May cause irritation.

CHRONIC (CANCER) INFORMATION: Not listed

No known long term effects.

12

ECOLOGICAL INFORMATION

Ecological studies have not been conducted for this product.

13

DISPOSAL CONSIDERATIONS

If this product becomes a waste, it would be expected to meet the criteria of a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. (See 40 CFR Part 261.20 - 261.33) It is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal

Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled.

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

14

TRANSPORT INFORMATION

Dept. of Transportation (DOT):

This product, as it leaves Blaster's facilities, meets the definitions set forth in CFR 49 part 173.150c as a "consumer commodity." Allowing for certain exceptions (173.156) for domestic surface (ground) shipments.

Proper shipping name: Consumer Commodity
Hazard class: ORM-D

International (IMDT-IATA):

Proper shipping name: Aerosols, Limited Quantities
Hazard class: 2.1
UN Number: 1950

MSDS Material Safety Data Sheet

The Blaster Corporation



PB Penetrating Catalyst

MSDS Number: PB - Aerosol

Revision Date: 10/15/10

Page 6 of 6

15

REGULATORY INFORMATION

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Superfund Amendments Reauthorization Act (SARA TITLE) III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product contains a chemical known to the State of California to cause cancer.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Consumer Product Safety Act General Conformity Certification: This product was evaluated by The Blaster Corporation, and is certified to be in compliance with the provisions of the Consumer Product Safety Act, the Federal Hazardous Substances Act and the Poison Prevention Packaging Act, as applicable. This product was manufactured at the location listed in Section 1 of this MSDS. The date of manufacture is stamped on the product container. No testing is required to certify compliance with the above.

16

OTHER INFORMATION

Manufacturer's Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither The Blaster Corporation nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard which exists.

HMIS Ratings:

Health: 2
Fire: 2
Reactivity: 0

NFPA Ratings:

Health: 2
Fire: 2
Reactivity: 0

END OF MSDS DOCUMENT



MATERIAL SAFETY DATA SHEET CLR CALCIUM, LIME & RUST REMOVER

1 - PRODUCT AND COMPANY IDENTIFICATION

SDS ID: 521012

Product Name CLR Calcium, Lime & Rust Remover

Product Use Aqueous Acidic Cleaner for Removal of Calcium, Lime, and Rust from Hard Surfaces Retail Package: [28 fl. oz., 42 fl. oz., and 128 fl. oz. (one gallon)]

CAS# Proprietary Mixture

Restrictions on Use Incompatible with strong oxidizing agents, metals (except stainless steel, chrome), acids, bases, and bleach.

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 24 hour Contact: Chemtrec 1(800) 424-9300

2 – HAZARDS IDENTIFICATION

Emergency Overview: **WARNING:** EYE IRRITANT. GHS Toxicity Category 2A Causes eye irritation and possible SKIN IRRITANT GHS Category 3 – on sensitive skin. DO NOT get in eyes, on skin or clothing. DO NOT mix with bleach or other household chemicals as harmful fumes may result. DO NOT ingest. DO NOT breathe vapor or mist. Use in well ventilated areas. Keep container closed when not in use.

KEEP OUT OF REACH OF CHILDREN

Potential Short Term Health Effects

Routes of Exposure Eyes, Skin, Inhalation, Ingestion.

Eyes Irritant
Avoid eye contact
Effects may vary depending on length of exposure, solution concentration

Skin Irritant. Prolonged contact may cause dermatitis, and itching.

Inhalation No adverse effects expected under typical use conditions.

Ingestion Oral burns, vomiting, and gastrointestinal disturbance.

Target organs Eyes. Skin.

SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS#</u>	<u>OSHA HAZARD</u>	<u>% by Weight</u>
1. Lactic Acid	79-33-4	YES	12.00-18.00
2. Gluconic Acid	526-95-4	YES	2.50-3.75
3. Lauramine Oxide	1643-20-5	YES	1.50-3.25



MATERIAL SAFETY DATA SHEET

CLR CALCIUM, LIME & RUST REMOVER

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. If irritation persists, get 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. If irritation persists get medical attention.

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.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABILITY: Not flammable

FLASH POINT: None; Method: ASTM D-56

EXPLOSIVE LIMITS IN AIR: Not available

EXTINGUISHING MEDIA: Not flammable. Use appropriate media for area. Use 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.

SECTION 6 – ACCIDENTAL RELEASES MEASURES

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.

SECTION 7- HANDLING AND STORAGE

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 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 (28, and 42 fluid ounces and gallon containers), should be rinsed and recycled. DO NOT PRESSURIZE, CUT OR EXPOSE THESE CONTAINERS TO HEAT, FLAME,



MATERIAL SAFETY DATA SHEET CLR CALCIUM, LIME & RUST REMOVER

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.

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.

EYE PROTECTION: Not required during normal household usage. 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:

COMPONENT	OSHA		ACGIH	
	PEL	STEL/C	TWA	STEL/C
1. Lactic Acid	N.E.	N.E.	N.E.	N.E.
2. Gluconic Acid	N.E.	N.E.	N.E.	N.E.
3. Lauramine Oxide	N.E.	N.E.	N.E.	N.E.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	99°C / 210° F	Specific Gravity @20°C:	1.04 – 1.06
Vapor Pressure:	N.D.	Percent Volatiles:	~77.2% (Calculated)
Freezing Point:	N.D.	Evaporation Rate:	N.D. (nBuAc=1)
Melting Point:	N.D.	Total VOC (wt. %):	0% - does not include any
Vapor Density (mm Hg):	N.D.	(Volatile Organic Compounds/ CARB applicable	
pH: @20°C	2.10-2.30	California Air Resource Board) exemptions	
Solubility in Water:	100%		

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid elevated temperatures.

INCOMPATIBLE MATERIALS: Strong oxidizing agents, metals (except stainless steel and chrome), acids, and bases.

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

POSSIBILITY OF HAZARDOUS REACTIONS: No data.

SECTION 11 – TOXICOLOGICAL INFORMATION

LD₅₀ ACUTE EYE IRRITATION: OPPTS 8740.2400 Toxicity - Irritant; GHS Toxicity Category 2A - Irritant

LD₅₀ ACUTE DERMAL IRRITATION - RABBITS: OPPTS 870.2500 Toxicity Category IV – Mild or Slight Skin Irritation; GHS Category 3 – Mild Skin Irritation.

LD₅₀ ACUTE ORAL TOXICITY – RATS: OPPTS 870.1100 Toxicity Category IV >5,000 mg/kg; GHS Category 5 >5,000 mg/kg - Not Toxic



MATERIAL SAFETY DATA SHEET CLR CALCIUM, LIME & RUST REMOVER

LD₅₀ ACUTE DERMAL TOXICITY - RABBITS: OPPTS 870-1200 Toxicity Category IV >5 g/kg; GHS Category 5 >5,000 mg/kg – Not Toxic
LD₅₀ ACUTE INHALATION TOXICITY – RATS: OPPTS 870.1300 Toxicity Category IV - Not toxic by inhalation; GHS Category 5 - Not toxic by inhalation

SECTION 12- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

LACTIC ACID:

Persistence / degradability

Readily biodegradable, according to appropriate OECD test.
Biochemical oxygen demand (BOD)₅ = 0.45 mg O₂ /mg
Biochemical oxygen demand (BOD)₂₀ = 0.60 mg O₂ /mg
Chemical oxygen demand (COD) = 0.90 mg O₂ /mg

Bioaccumulation

None.

Ecotoxicity

EC₅₀/48h/Daphnia = 240mg/l LC₅₀/48h/Fish = 320 mg/l
EC₅₀/Algae = 3500 mg/l(neutral) No data available.

GLUCONIC ACID:

Fish 96-h LC₅₀ > 1000.0 mg/L
Daphnid 48-h LC₅₀ > 1000.0 mg/L
Green algal 96-h EC₅₀ > 1000.0 mg/L
Fish Chronic Value (ChV) > 100.0 mg/L
Daphnid ChV > 100.0 mg/L
Algal ChV > 100.0 mg/L
Biological Fate: No bioconcentration in aquatic organisms and rapid biodegradation/disappearance in the environment, i.e. 40% in 5 days.

LAURAMINE OXIDE: Acute Aquatic Toxicity

Reviewed Category ≤1 mg/L
Algae IC₅₀ 0.01 mg/L
Invertebrate EC₅₀ 1.01 mg/L
Fish LC₅₀ 2.6 mg/L
Biodegradation: % degraded in 28 days ≥60% ThOD/ThCO₂ (≥70% DOC)

DOWANOL DPNB:

Movement & Partitioning

Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50).



MATERIAL SAFETY DATA SHEET CLR CALCIUM, LIME & RUST REMOVER

Henry's Law Constant (H): 3.78E-07 atm*m3/mole; 25 °C Estimated.

Partition coefficient, n-octanol/water (log Pow): 1.13 Estimated.

Partition coefficient, soil organic carbon/water (Koc): 10 - 21 Estimated.

Persistence and Degradability

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

Indirect Photodegradation with OH Radicals

Rate Constant Atmospheric Half-life Method

4.97E-11 cm3/s 2.6 h Estimated.

OECD Biodegradation Tests:

Biodegradation Exposure Time Method

91 % 28 d OECD 301E Test

96 % 28 d OECD 302B Test

Theoretical Oxygen Demand: 2.35 mg/mg

ECOTOXICITY

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, guppy (Poecilia reticulata), static, 96 h: 841 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, water flea Daphnia magna, static, 48 h, immobilization: > 1,000 mg/l

CLR CHEMICAL FATE INFORMATION: 28-day biodegradation. The matter is readily biodegradable. OECD 301D

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Rinse empty bottles and recycle. Dispose of unused product 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.



MATERIAL SAFETY DATA SHEET CLR CALCIUM, LIME & RUST REMOVER

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 TITLE III SECTION 311/312 CATEGORY:

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

SARA SECTIONS 302/304/313/HAP: NO

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.
Complies with listed States Right to Know Act.

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

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
	HAP:	Hazardous Air Pollutant
	VOC:	Volatile Organic Compound
	N. D.:	Not Determined
	N.E.:	Not Established



MATERIAL SAFETY DATA SHEET CLR CALCIUM, LIME & RUST REMOVER

C: Ceiling Limit
HAP: Hazardous Air Pollutant
VOC: Volatile Organic Compound

Revision: New Formula, GHS Format	October 2012	R. A. Gaudreault
--	---------------------	-------------------------

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.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION HEREIN REFERS.