

SAFETY DATA SHEET

NOTICE: Judgment may be based on indirect test and technical literature. The OSHA Hazard Communication Standard only requires SDS's and special labeling for materials defined as "HAZARDOUS"; see 29 CFR 1910.1200 (c). This document may be about a product which is NOT hazardous but is provided as information for our customers. See references for information.

SECTION 1. IDENTIFICATION

Product Identifier: Enviro-Master Green Emulsion	Product Identification # (PIF): 02738
Product Use: Lime Scale Remover	Emergency Telephone #: 1-800-255-3924 ChemTel
Manufactured for: Enviro-Master Services	General Information #: 855-776-4944
415 Minuet Lane, Suite G	Date Prepared: May 26, 2014
Charlotte, NC 28217	Date Revised: January 18, 2016

SECTION 2. HAZARD(S) IDENTIFICATION

GHS Hazard Codification



Signal Word: DANGER

Hazard Class	Category	Code	Hazard Statement
Flammable Liquid	3	H226	Flammable liquid and vapor
Corrosive to Metals	1	H290	May be corrosive to metals
Aspiration Hazard	2	H305	May be harmful if swallowed and enters airways
Skin Corrosion	1B	H314	Causes severe burns and eye damage
Eye Damage	1	H318	Causes serious eye damage
STOT: SE, Respiratory Tract Irritation	3	H335	May cause respiratory irritation
STOT, Single Exposure; Narcotic effects	3	H336	May cause drowsiness or dizziness
Hazardous to the Aquatic Environment, Acute Hazard	2	H401	Toxic to aquatic life

Precautionary Measures:

Category	Code	Statement
Prevention	P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking. Keep container tightly closed. Keep only in original container. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe fumes/mists/ vapors/sprays. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
	P233	
	P234	
	P240	
	P241	
	P242	
	P243	
	P260	
	P264	
	P271	
	P273	
Response	P301	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatments: See section 4 First Aid Measures. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. In case of fire: Use foam, dry chemical, carbon dioxide fire extinguishers or water spray for extinction. Absorb spillage to prevent material damage.
	P330	
	P331	
	P303+P361+P353	
	P363	
	P304+P340	
	P310	
Storage	P321	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store in a closed container. Store locked up.
	P305+P351+P338	
	P310	
	P370+P378	
Disposal	P390	Dispose of contents/container in compliance with all Federal, State/Provincial and local laws and regulations.
	P403+P233+P235	
	P404	
	P405	

Description of any hazards not otherwise classified: Repeated or prolonged contact causes skin defatting (dermatitis). High vapor concentrations may cause irritation to the entire respiratory tract and central nervous system depression, resulting in headache, dizziness and nausea. May cause irritation to the entire gastrointestinal tract. May be harmful if swallowed in large amounts.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Common Name	CAS #	Concentration Range %
Phosphoric acid	None known	7664-38-2	32 – 36
Isopropanol	IPA	67-63-0	10 – 14

Dodecylbenzene Sulfonic Acid	DDBSA	27176-87-0	7 – 11
Hydrochloric acid	Muriatic acid	7647-01-0	1 – 4

SECTION 4. FIRST AID MEASURES

Eyes: Flush well with water for at least 15 minutes, holding eyelids open. Remove any contact lenses and continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin: Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash with soap and water. Wash contaminated clothing before reuse. If irritation persists, seek medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. If breathing is difficult, have a trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration by way of pocket mask equipped with one-way valve or other proper respiratory device – DO NOT use mouth-to-mouth method if victim inhaled material. Call a physician.

Ingestion: Call a physician immediately! DO NOT INDUCE VOMITING. Rinse mouth. Call a physician immediately. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

SECTION 5. FIRE-FIGHTING MEASURES

Flammability: Class IC Flammable liquid

Flash Point: 92°F (33°C)

Extinguishing Media: Foam, dry chemical, carbon dioxide fire extinguishers, water spray. Do not spray water directly on fire. Use water spray to cool containers. Use water spray to keep fire-exposed containers cool.

Specific hazards arising from chemical: This product is corrosive and presents a significant contact hazard to firefighters. Fire may produce irritating, corrosive and/or toxic gases. Vapors are heavier than air and may travel along the ground to an ignition source. Never use welding or cutting torch on or near drum (even empty) because product can ignite explosively.

Hazardous combustion products: Oxides of carbon, phosphorous and sulfur, hydrogen sulfide, hydrogen chloride, chlorine, corrosive/toxic fumes.

Firefighting protective equipment: Wear a self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

Sensitivity to static discharge: This product is sensitive to static discharge. Grounding equipment is recommended.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment (Section 8). Eliminate all ignition sources. Ventilate area. Do not breathe fumes/mists/ vapors/sprays. Wash thoroughly after handling.

For Small Spills: Avoid release to the environment. Avoid dispersal of material and runoff into soil, waterways, drains and sewers. Neutralize with weak basic material (soda ash), then absorb spill with vermiculite or other inert material, and then place in a container for chemical waste. Litmus paper may be used to confirm neutralization. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste with non-sparking tools. Wash walking surfaces with water. Dispose of contaminated absorbent material in accordance with local, state and federal regulations.

For Large Spills: Large spills cannot occur due to packaging.

SECTION 7. HANDLING AND STORAGE

Handling: Wear personal protection equipment (Section 8). Use only outdoors or in a well-ventilated area. Do not breathe fumes/mists/ vapors/sprays. Do not handle around sources of ignition. Use proper bonding and grounding during product transfer as described in document NFPA 77. Use explosion-proof equipment and non-sparking tools. Take precautionary measures against static discharge. Vapors are heavier than air and may travel along the ground to an ignition source. Never use welding or cutting torch on or near drum (even empty) because product can ignite explosively. Do not premix with other chemicals. Avoid release to the environment. Empty containers may contain residue and can be dangerous. Do not eat, drink or smoke in work areas. Wash thoroughly after handling.

Storage: Keep away from heat, flame, or sunlight – keep cool. Keep from freezing. Keep only in original container. Keep container tightly closed when not in use. Store in a well-ventilated place. Store locked up. Protect from physical damage. Store away from incompatible with alkalis, carbides, cyanides, sulfides, metal powders, sodium hypochlorite, sodium bisulfate, aldehydes, amines, halogens, isocyanates, metals, oxidizing agents, amines and reducing agents. Do not mix this product with sodium hypochlorite or sodium bisulfate – a deadly gas can be formed.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	CAS #	OSHA/PEL	ACGIH/TLV	STEL
Phosphoric acid	7664-38-2	1 mg/m3	1 mg/m3	Not established
Isopropanol	67-63-0	400 ppm	400 ppm	500 ppm
Dodecylbenzene sulfonic acid	27176-87-0	1 mg/m3	0.2 mg/m3	Not established
Hydrochloric acid	7647-01-0	5ppm	2ppm	Not established

Engineering Controls: Provide adequate ventilation. Observe occupational exposure limits and keep the risk of exposure to a minimum.

Personal protective equipment:

Eye: Safety glasses with side shields or splash proof goggles and face shield when handling large amounts.

Skin: Chemical resistant (impervious) gloves. Normal materials handling clothing and apron.

Respirator: Use NIOSH approved protection with acid vapor cartridge if PEL is exceeded, or if sprays/mists are generated.

Other: Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke while handling. Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Green, clear liquid	Upper/Lower flammability limits	Not determined
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Odor	Acrid and alcohol	Vapor pressure	Not determined
Odor threshold	Not determined	Vapor density (Air = 1)	<1
pH	<1	Specific gravity (water = 1.0)	1.175 g/ml
Melting point	Not determined	Solubility	Complete in water
Freezing point	Not determined	Partition coefficient (n-octanol/water)	Not determined
Boiling point	Not determined	Auto-ignition temperature	Not determined
Flash point	92°F (33°C)	Decomposition temperature	Not determined
Evaporation rate (n-butyl acetate=1)	<1	Viscosity	Not determined
Flammability	Class IC Flammable liquid	%Volatile/Volume	52

SECTION 10. STABILITY AND REACTIVITY

Reactivity: May be corrosive to metal. Reacts violently with strong alkaline substances. This product may react with reducing agents and oxidizing agents.

Chemical stability: Stable under normal, ambient temperature and conditions.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Heat, flame and sparks. Keep from freezing. Do not mix with other chemicals

Incompatible materials: Incompatible with alkalis, carbides, cyanides, sulfides, metal powders, sodium hypochlorite, sodium bisulfate, aldehydes, amines, halogens, isocyanates, metals, oxidizing agents, amines and reducing agents. Do not mix this product with sodium hypochlorite or sodium bisulfate – a deadly gas can be formed.

Hazardous combustion products: Oxides of carbon, phosphorous and sulfur, hydrogen sulfide, hydrogen chloride, chlorine, corrosive/toxic fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity:

Oral (LD50 Rat): Not determined

Dermal (LD50 Rabbit): Not determined

Inhalation (LC50 Rat): Not determined

Skin corrosion/irritation: Corrosive to skin. Symptoms may include burns, ulceration and scarring. Prolonged/repeated skin exposures can result in dermatitis.

Serious eye damage/irritation: Corrosive to eyes. Symptoms may include severe irritation, disintegration, scarring and clouding.

Respiratory or skin sensitization: Inhaling mists/sprays of material is corrosive to respiratory tract and may cause pulmonary edema (shortness of breath and tightness of chest).

Germ cell mutagenicity: No data available

Carcinogenicity: NTP/IARC/OSHA Carcinogen: Isopropyl alcohol (IARC)

Reproductive toxicity: Not available

STOT-single exposure: May cause respiratory irritation. May cause dizziness or drowsiness.

STOT-repeated exposure: Not classified

Aspiration hazard: Lung aspiration may result in chemical pneumonitis, pulmonary edema, damage to lung tissue, and in extreme cases death.

Ingestion: Corrosive to digestive tract. May cause severe pain, burning, vomiting and diarrhea. Lung aspiration may result in chemical pneumonitis, pulmonary edema, damage to lung tissue, and in extreme cases death.

Likely routes of exposure: Eyes, skin and inhalation.

Interactive effects: Not available

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

96h LC-50 (fish): Not determined

96h EC-50 (invertebrates): Not determined

48h LC-50 (algae): Not determined

Persistence and degradability: Not determined

Bioaccumulation: Not determined

Mobility in soil: Mobile in soil. This product is soluble in water and may spread in water systems.

Other adverse effects: Toxic to aquatic life – avoid release to the environment. This product can raise the pH of an aquatic environment, and thus be toxic to fish and aquatic plants. As with all chemicals, work practices should be aimed at eliminating environmental releases.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Do not dump into sewers, on the ground or into any waterways. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.

Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied. Do not cut, drill, grind or weld on or near the container.

RCRA: A waste containing this product may have the RCRA hazardous waste no. D001 (Ignitable) and D002 (Corrosive) (40 CFR 261.22).

SECTION 14. TRANSPORT INFORMATION

United States DOT:

UN/ID No.: UN2924

Proper Shipping Name: Flammable liquids, corrosive, n.o.s., (Isopropyl Alcohol, Phosphoric Acid, Dodecylbenzene Sulfonic Acid, Hydrochloric Acid)

Hazard Class: 3 (8)

Packing Group: III

49 CFR §173.150 (b) (3) (Exemption): This product can ship as "Limited Quantity" in inner packaging not over 1.3 gallons (5.0 Liter). (Non Hazardous)

IATA and IMDG:

UN/ID No.: UN2924
 Proper Shipping Name: Flammable liquids, corrosive, n.o.s., (Isopropyl Alcohol, Phosphoric Acid, Dodecylbenzene Sulfonic Acid, Hydrochloric Acid)
 Hazard Class: 3 (8)
 Packing Group: III
 Marine Pollutant (IMDG Code): Not listed (49 CFR 172.101).
 Transportation in bulk (IMDG - Annex II of MARPOL 73/78 and IBC Code): Not offered in bulk for transport overseas.

SECTION 15. REGULATORY INFORMATION

TSCA: All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.30.

SARA Section 302: The components of this product are either not regulated or regulated, but present in negligible concentrations.

SARA TITLE III Section 311/312:

Immediate (Acute) Health	Yes	Fire Hazard	Yes
Delayed (Chronic) Health	No	Reactive Hazard	Yes

SARA Title 313: This material contains the following chemical components with known CAS numbers subject to reporting requirements (40 CFR 372): Hydrochloric Acid CAS# 7647-01-0, percent by weight = 24%.

CERCLA: Hydrochloric acid (CAS# 7647-01-0) and Phosphoric acid CAS# 7664-38-2 both have a reportable quantity of 5,000 lbs, and Dodecylbenzene Sulfonic Acid CAS# 27176-87-0 has a RQ of 1,000 lbs., all at 100% concentration. However, this product is not considered a Hazardous Substance since the quantity does not equal or exceed the RQ in one package (49 CFR 171.8, definition of "Hazardous Substance").

United States Right-To-Know: Phosphoric Acid CAS# - Massachusetts, Minnesota, Rhode Island, New Jersey & Pennsylvania. Isopropyl Alcohol CAS# 67-63-0 – Massachusetts, New Jersey and Pennsylvania. Dodecylbenzene Sulfonic Acid CAS# 27176-87-0 - Massachusetts, New Jersey and Pennsylvania. Hydrochloric Acid CAS# 7647-01-0 - Massachusetts, New Jersey & Pennsylvania.

Proposition 65: This material contains the following ingredients for which the state of California has found to cause cancer, birth defects or other reproductive harm: Sulfur Dioxide CAS# 7446-09-5.

RCRA: A waste containing this product may have the RCRA hazardous waste no. D001 (Ignitable) and D002 (Corrosive) (40 CFR 261.22).

SECTION 16. OTHER INFORMATION

Date Prepared: January 18, 2016 – Updated to meet GHS requirements.

Hazard Ratings (HMIS): Health 3, Flammability 3, Reactivity 1 (Scale 0 – 4). Personal Protection Rating to be supplied by user based on use conditions.

Product VOC: 14%

Carefully read all instructions on label before handling this product.

Keep out of reach of children.

"FOR INDUSTRIAL USE ONLY"

Abbreviation	Full Name/Explanation
ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CNS	Central Nervous System
CFR	Code of Federal Regulations
DOT	Department of Transportation
EC	Effective Concentration
GHS	Globally Harmonized System
HMIS	Hazardous Material Information System
LC	Lethal Concentration
LD	Lethal Dose
NA	Not Applicable
ND	Not Determined
NE	Not Established
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation Recovery Act
SARA	Superfund Amendments and Reauthorization Act
STEL	Short-Term Exposure Limit
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
VOC	Volatile Organic Compounds

The information contained herein is based on data available to us and is believed to be correct. We make no warranty, however, expressed or implied regarding the accuracy of these data or the results obtained from the use thereof.

Regulatory Standards: DOT TITLE 49, Code of Federal Regulations 172.101: Parts 100 to 177, Revised 10/1/92.

SUPER FUND AMENDMENTS REAUTHORIZATION ACT OF 1986, TITLE III TOXIC SUBSTANCE CONTROL ACT LIST (TSCA)- INGREDIENTS LISTED. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES NATIONAL TOXICOLOGICAL PROGRAM (NTP) REPORT OF CARCINOGENS INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) MONOGRAPHS, OCCUPATIONAL SAFETY & HEALTH REGULATIONS. CODE OF FED. REGS. FOOD & DRUG, 21 PARTS 170 to 199, Revised 4/1/91, 173.310.