SAFETY DATA SHEET

ECO CLEAN Warewash Delimer

Product code: D11031

Version 1 | Issue date 2026-10-26 | Supersedes Earlier SDS, unnumbered

SECTION 1. IDENTIFICATION

Product identifier

Product name ECO CLEAN Warewash Delimer

Other means of identification EcoClean Warewash Delimer; Warewash Delimer

Product code	Package	Net contents	UPC
D11031	Case of 4 x 1 US gal jugs	4 x 1 US gal (4 x 3.78 L)	787302110315

Recommended use and restrictions on use

Recommended use Concentrated acid detergent that removes lime and scale from commercial dishwashing machines and other kitchen equipment. Dilute with water before use. Descaling commercial dishwashers: add 2 to 8 fl oz per US gal of water (16 to 63 mL/L) to the wash, power rinse and scrapper tanks, depending on the amount of scale, circulate for 10 to 30 minutes at normal machine operating temperature, then drain and rinse. Descaling equipment by brushing or soaking: prepare 1/2 to 1 fl oz per US gal of water (4 to 8 mL/L), flood or brush onto the surface, soak for 10 minutes and rinse.

Restrictions on use For commercial and industrial use. Always dilute with water before use. On aluminum surfaces, do not exceed 1/4 fl oz per US gal of water (2 mL/L). Do not use on marble or other natural stone or on galvanized metal. Rinse all food-contact surfaces thoroughly with potable water after treatment, and avoid contaminating food during use or storage. Do not mix with anything but water; never mix with bleach, ammonia or other cleaning products.

Manufacturer or supplier

Company Gascó Industrial Corp.

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Mailing address PO Box 1360, Gurabo, PR 00778

Telephone (787) 737-4000

Email orders@gascoindustrial.com

Website www.gascoindustrial.com

Emergency telephone number

Poison Control 1-800-222-1222 (24 hours)

SECTION 2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Corrosive to metals Category 1

Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Label elements



Signal word

Danger

Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary statements

Prevention

P102	Keep out of reach of children.	**P234**	Keep only in original packaging.
P260	Do not breathe mists or vapors.	**P264**	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.		

Response

P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see Section 4 of this Safety Data Sheet).
P363	Wash contaminated clothing before reuse. **P390** Absorb spillage to prevent material damage.

Storage

P405	Store locked up.	**P406**	Store in a corrosion resistant container.

Disposal

P501	Dispose of contents/container in accordance with local, state and federal regulations.

Other hazards

Hazards of chemical reaction products	None known under the directions for use. Mixing with chlorine bleach or other hypochlorite products releases toxic chlorine gas; mixing with ammonia or alkaline cleaners generates heat and spattering (see Section 10).
Hazards not otherwise classified (HNOC)	None known.
Other hazards which do not result in classification	Mist or spray of the concentrate is corrosive to the nose, throat and respiratory tract. Contact with aluminum, zinc, tin, galvanized metal or carbon steel can release flammable hydrogen gas.
Unknown acute toxicity	Approx. 2% of the mixture consists of ingredients of unknown acute dermal toxicity, and approx. 13% of ingredients of unknown acute inhalation toxicity.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance or mixture Mixture

Chemical name	CAS number or other identifier	Concentration (%)	GHS classification
Inorganic acid	Trade secret	10 to 30 (w/w)	Corrosive to metals, Category 1 (H290); Acute toxicity (oral), Category 4 (H302); Skin corrosion/irritation, Category 1B (H314); Serious eye damage/eye irritation, Category 1 (H318)
Organic acid	Trade secret	1 to 5 (w/w)	Acute toxicity (oral), Category 4 (H302); Acute toxicity (inhalation), Category 4 (H332); Skin corrosion/irritation, Category 1B (H314); Serious eye damage/eye irritation, Category 1 (H318); Specific target organ toxicity, single exposure (respiratory tract irritation), Category 3 (H335)
Water	7732-18-5	Balance	Not classified

Concentrations are percent by weight. The specific chemical identities and exact percentages of the inorganic acid and organic acid have been withheld as a trade secret under 29 CFR 1910.1200(i); their concentrations are given as ranges.

SECTION 4. FIRST-AID MEASURES

Inhalation	Move the person to fresh air and keep at rest in a position comfortable for breathing. If the person is not breathing, call 911 or an ambulance, then give artificial respiration. Call Poison Control at 1-800-222-1222 or a doctor for further treatment advice. If gas from mixing the product with bleach was inhaled, get medical attention immediately, even without symptoms.
Skin contact	Take off contaminated clothing and shoes immediately. Rinse skin immediately with plenty of water or shower for 15 to 20 minutes. Call Poison Control at 1-800-222-1222 or a doctor immediately for treatment advice. Wash contaminated clothing before reuse.
Eye contact	Immediately hold the eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. Call Poison Control at

	1-800-222-1222 or a doctor immediately and get medical attention without delay.
Ingestion	Call Poison Control at 1-800-222-1222 or a doctor immediately for treatment advice. Rinse mouth with water. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by Poison Control or a doctor. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, acute and delayed	Eyes: severe pain, redness and burns; may cause permanent eye damage, including blindness. Skin: redness, pain and chemical burns. Ingestion: burns of the mouth, throat and stomach, pain, nausea and vomiting. Inhalation of mist: burning of the nose and throat, coughing and shortness of breath. Delayed: fluid in the lungs can develop hours after inhaling chlorine gas released by mixing the product with bleach.
Immediate medical attention and special treatment	Treat as an acid burn. Do not attempt to neutralize. After ingestion, assess for injury to the esophagus and stomach. After inhalation of chlorine gas, observe for delayed pulmonary edema. Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	The product does not burn. Use extinguishing media suitable for the surrounding fire. Use water spray to cool exposed containers.
Unsuitable extinguishing media	Do not use a solid water stream; it may scatter the corrosive liquid.
Specific hazards arising from the chemical	Not flammable. Contact with aluminum, zinc, tin, galvanized metal or carbon steel can release flammable hydrogen gas. Containers may rupture when heated.
Hazardous combustion products	Corrosive acid fumes and carbon oxides when the dried residue is involved in a fire.
Special protective equipment and precautions for fire-fighters	Wear positive-pressure self-contained breathing apparatus and full protective fire-fighting gear, with chemical-resistant clothing where contact with the product is possible. Cool containers exposed to fire with water spray from a safe distance. Contain runoff from fire control; it is acidic and corrosive.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unprotected personnel away. Ventilate the area. Avoid contact with eyes, skin and clothing and avoid breathing mist. Wear the protective equipment listed in Section 8, including goggles, a face shield, chemical-resistant gloves and boots. Do not let spilled product contact bleach, ammonia or alkaline cleaners.
Environmental precautions	Prevent entry into drains, sewers and waterways; the undiluted product is strongly acidic and its low pH harms aquatic life (see Section 12). Notify the authorities if the product reaches sewers or waterways, as required by applicable regulations.
Methods and materials for containment and cleaning up	Stop the leak if it can be done without risk. Contain the spill with sand, earth or another inert absorbent. Small spills may be neutralized slowly with sodium bicarbonate or soda ash before they are absorbed. Do not use bleach or chlorinated products to clean up. Collect the absorbed material in closed, labeled plastic containers for disposal. Rinse the area with plenty of water and prevent the rinse water from entering drains unless local rules allow it.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling	Do not get in eyes, on skin or on clothing. Do not breathe mist or spray. Always dilute with water before use and add the product to the water. Never mix with bleach, ammonia or other cleaning products: mixing with bleach or other chlorinated products releases toxic chlorine gas. Drain and rinse dishwashing machines before and after deliming so the delimer does not meet chlorinated or alkaline detergents in the tanks. After treatment, rinse all food-contact surfaces thoroughly with potable water. Use with adequate ventilation. Use only as directed on the product label. Wash thoroughly with soap and water after handling. Keep out of reach of children.
Conditions for safe storage, including any incompatibilities	Store in the original, closed container in a cool, well-ventilated area, out of direct sunlight and away from heat. Store locked up. Keep away from bleach, ammonia, alkaline cleaners and the other incompatible materials listed in Section 10. Store away from food and food packaging materials. Do not store in aluminum, galvanized, carbon steel or other metal containers; the original plastic containers are suitable.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Component	CAS number	OSHA PEL	ACGIH TLV	NIOSH REL	IDLH
Inorganic acid	Trade secret	1 mg/m³ TWA	1 mg/m³ TWA; 3 mg/m³ STEL	1 mg/m³ TWA; 3 mg/m³ STEL	1,000 mg/m³

Components without established occupational exposure limits: Organic acid, Water.

Exposure controls and personal protective equipment

Other exposure guidelines	No other ingredient listed in Section 3 has an OSHA, ACGIH or NIOSH limit.
Engineering controls	General ventilation is normally adequate for use as directed. Use local exhaust ventilation where mist is generated in enclosed areas and at filling and transfer points. Provide an eyewash station and safety shower close to the work area.
Eye and face protection	Chemical splash goggles. Add a face shield when pouring or transferring the concentrate, when adding it to dishwasher tanks, or wherever splashing is likely.
Hand protection	Acid-resistant gloves, such as nitrile, neoprene, butyl rubber or polyvinyl chloride. Confirm breakthrough time with the glove manufacturer for the conditions of use.
Body protection	Long sleeves, a chemical-resistant apron and chemical-resistant boots when handling the concentrate or where splashing is likely.
Respiratory protection	Not normally required with adequate ventilation when used as directed. If mist exposure may exceed the limits, use a NIOSH-approved respirator with acid gas cartridges and P100 filters, under a respiratory protection program that meets 29 CFR 1910.134.
General hygiene	Wash thoroughly with soap and water after handling and before eating, drinking or smoking. Remove contaminated clothing and wash it before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid	**Color**	Clear, light green
Odor	Slight; no fragrance added	**Odor threshold**	No data available
Melting point/freezing point	Approx. -3 °C (27 °F)	**Initial boiling point and boiling range**	Approx. 101 °C (214 °F)
Flammability	Not flammable	**Flammability limits in air**	Not applicable
Flash point	Not applicable (water-based; does not burn)		
Auto-ignition temperature	Not applicable	**Decomposition temperature**	No data available
pH	Approx. 1 (concentrate). Use solutions of 1/2 to 8 fl oz per US gal: approx. 1.7 to 2.4 (before buffering by the water)		
Kinematic viscosity	Less than 5 mm²/s (water-thin liquid)	**Solubility in water**	Completely soluble
Partition coefficient n-octanol/water (log value)	No data available		
Vapor pressure	Similar to water: approx. 2.2 kPa (17 mmHg) at 20 °C (68 °F)		
Evaporation rate	No data available		
Density	Approx. 1.08 g/cm³ (9.0 lb/US gal) at 20 °C (68 °F)		
Relative density (water = 1)	Approx. 1.08 at 20 °C (68 °F)	**Relative vapor density (air = 1)**	No data available
Particle characteristics	Not applicable		
Basis of calculated values	Calculated or estimated from the composition and published data for the ingredients.		

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Reacts with bases and alkaline cleaners, generating heat. Reacts with chlorine bleach and other hypochlorite products, releasing toxic chlorine gas. Corrodes aluminum, zinc, tin, galvanized metal and carbon steel, releasing flammable hydrogen.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Contact with bleach or other chlorinated products liberates chlorine gas. Contact with strong bases or ammonia causes a vigorous reaction with heat and spattering. Contact with sulfides or cyanides releases toxic gases. Hazardous polymerization does not occur.
Conditions to avoid	Heat and contact with incompatible materials.
Incompatible materials	Chlorine bleach (sodium hypochlorite) and other chlorinated products, ammonia, strong bases and alkaline cleaners, strong oxidizers, sulfides and cyanides, aluminum, zinc, tin, galvanized metal, carbon steel, decorative brass, marble and other natural stone.
Hazardous decomposition products	Corrosive acid fumes and carbon oxides when heated to dryness or burned; hydrogen in contact with reactive metals. None expected under normal conditions of storage and use.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely routes of exposure	Eye contact, skin contact, inhalation of mist or spray, and ingestion.
Symptoms	Eyes: severe pain, redness and burns; may cause permanent damage, including blindness. Skin: redness, pain and chemical burns. Ingestion: burns of the mouth, throat and stomach, pain, nausea and vomiting. Inhalation of mist: burning of the nose and throat and coughing.
Delayed and immediate effects and chronic effects	Immediate: severe burns of the eyes, skin and mucous membranes. Delayed: fluid in the lungs hours after inhaling chlorine gas released by mixing the product with bleach. Chronic: repeated skin contact with use solutions may cause irritation.
Acute toxicity	Not classified. The calculated acute toxicity estimates of the mixture are above the classification limits for every route.
Acute toxicity estimates (ATE)	Oral: greater than 5,000 mg/kg (calculated). Dermal: greater than 5,000 mg/kg (calculated). Inhalation (mist): greater than 5 mg/L (calculated, corrected for the ingredients of unknown inhalation toxicity).
Skin corrosion/irritation	Category 1 (calculated from the acid content). Causes severe skin burns. The concentrate is strongly acidic (calculated pH approx. 1).
Serious eye damage/eye irritation	Category 1. Causes serious eye damage, which may be permanent.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified. No ingredient present at 0.1% or more is listed as a carcinogen by NTP, IARC or OSHA.
Reproductive toxicity	Not classified
Specific target organ toxicity, single exposure	Not classified. Mist of the concentrate is corrosive to the respiratory tract (see Section 2).
Specific target organ toxicity, repeated exposure	Not classified
Aspiration hazard	Not classified
Interactive effects	None known

Component data: Inorganic acid

LD50 oral, rat	1,530 mg/kg (published data)	**LD50 dermal, rabbit**	2,740 mg/kg (published data)
Skin corrosion	Corrosive		

Component data: Organic acid

LD50 oral, rat	1,950 mg/kg (published data)	**LC50 inhalation, rat, 4 h (dust/mist)**	3.6 mg/L (published data)
Skin corrosion	Corrosive		

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	No data available for the product. The undiluted product is strongly acidic, and its low pH harms aquatic life.
Persistence and degradability	The organic acid is readily broken down by microorganisms. The inorganic acid is neutralized in natural waters.
Bioaccumulative potential	Low. The acids do not accumulate in organisms.
Mobility in soil	No data available. The components are water soluble.
Other adverse effects	Not classified as hazardous to the aquatic environment under the GHS criteria, a class OSHA does not adopt: the organic acid is of low aquatic toxicity, and the inorganic acid affects aquatic life through its low pH. Undiluted product released to water can lower the pH enough to harm aquatic life, and may promote algae growth in surface waters.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods	Dispose of contents and container at a permitted hazardous waste facility in accordance with local, state and federal regulations. Do not discharge to storm drains, sewers or waterways without authorization. Do not mix the waste with bleach or alkaline wastes.
RCRA waste code	D002 (corrosive waste) when discarded, because its calculated pH is 2 or lower.
Contaminated packaging	Empty containers retain residue. Rinse them with water, add the rinse water to the use solution, and dispose of the rinsed containers in accordance with local regulations. Do not reuse them.

SECTION 14. TRANSPORT INFORMATION

	DOT (US ground)	IMDG (sea)	IATA (air)
UN number	UN1805	UN1805	UN1805
UN proper shipping name	Phosphoric acid, solution	Phosphoric acid, solution	Phosphoric acid, solution
Transport hazard class	8	8	8
Packing group	III	III	III
Hazard labels	Corrosive	Corrosive	Corrosive
Marine pollutant	No	No	Not applicable

Emergency response guide ERG Guide 154

Transport in bulk according to MARPOL Annex II Not applicable (shipped in packages, not in ship tanks)

4 x 1 US gal case (D11031) Each 3.785 L jug is within the 5 L inner packaging limit for a Class 8, packing group III limited quantity (49 CFR 173.154(b)). By highway or rail the case may ship as a limited quantity: strong outer packaging of 30 kg (66 lb) gross or less, limited quantity mark and orientation arrows; no Corrosive label, placard or shipping paper. Otherwise ship fully regulated in UN specification packaging for packing group III liquids (49 CFR 173.203), with the UN1805 and proper shipping name marks, Corrosive label, orientation arrows, shipping paper and emergency response information.

Special precautions for user Keep away from bleach, ammonia and alkaline products during transport. Keep containers upright and closed.

SECTION 15. REGULATORY INFORMATION

OSHA hazard communication This product is a hazardous chemical under 29 CFR 1910.1200.

TSCA inventory All components are listed as active on the TSCA Inventory.

SARA 302 No component is listed as an extremely hazardous substance.

SARA 311/312 Corrosive to metal; skin corrosion or irritation; serious eye damage or eye irritation.

SARA 313 Not subject to the supplier notification requirements of 40 CFR 372.

CERCLA reportable quantity The inorganic acid (Section 3) is a CERCLA hazardous substance with a reportable quantity (RQ) of 5,000 lb. Based on the upper limit of its Section 3 concentration range, evaluate releases of about 16,700 lb (about 1,850 US gal) or more of the product for reporting to the National Response Center (40 CFR 302.6).

Clean Water Act The inorganic acid is a section 311 hazardous substance (40 CFR 116.4).

New Jersey right-to-know Contains a substance on the New Jersey right-to-know hazardous substance list.

Pennsylvania right-to-know Contains a substance on the Pennsylvania right-to-know hazardous substance list.

Massachusetts right-to-know Contains a substance on the Massachusetts right-to-know list.

California Proposition 65 No ingredient listed in Section 3 is on the Proposition 65 list.

SECTION 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of preparation or last revision

Issue date 2026-10-26 **Version** 1

Date of first issue 2026-10-26 **Supersedes** Earlier SDS, unnumbered

Hazard ratings

NFPA 704



HMIS

Health	3
Flammability	0
Physical hazard	0

NFPA 704 ratings run from 0 (minimal hazard) to 4 (severe hazard). HMIS rating scale: 0 minimal, 1 slight, 2 moderate, 3 serious, 4 severe. Personal protection: see Section 8.

NFPA 704 and HMIS ratings are provided for reference only and are not part of the GHS classification.

Disclaimer

The information in this Safety Data Sheet is believed to be accurate as of the issue date and is given in good faith as a guide to safe handling, use, storage, transport and disposal. It is not a product specification and no warranty, express or implied, is made. Users must determine the suitability of the product for their own purposes and comply with all applicable laws and regulations. Gascó Industrial Corp. accepts no liability for loss or damage resulting from the use of this information or of the product.

Document control (Section 16, continued)

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Revision history

Version	Date	Summary of changes
1	2026-10-26	First issue.

Review and approval

Role	Name	Title	Signature	Date
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Prepared in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200.

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