Safety Data Sheet
DE-LIME

SECTION 1- PRODUCT IDENTIFICATION

PRODUCT NAME	DE-LIME
SYNONYMS	Product is a mixture: No synonyms are available
PRODUCT USE	Highly Acidic Material
SUPPLIER	Such Group International, Inc.
SUPPLIER'S ADDRESS	601 6th St SW, Unit 5 Great Falls MT 59405, (406) 231-1205
EMERGENCY RESPONSE	InfoTrac: 1-800-535-5053
PHONE	UF Customer Service: (406) 727-4144

SECTION 2 – HAZARD IDENTIFICATION

GHS – US CLASSIFICATION	:	H290	Metal corrosion Category 1
	:	H302	Harmful if swallowed
	:	H314	Skin Corrosion Category 1A
	:	H318	Serious Eye Damage Category 1
	:	H370	STOT SE 1
HAZARD PICTOGRAMS	:		
SIGNAL WORD	:	**DANGER**	
GHS LABEL ELEMENTS	:	The product is classified and labeled according to the Globally Harmonized System (GHS).	
GHS PHYSICAL HAZARDS	:	H290	May be corrosive to metals.
	:	H302	Harmful if swallowed
	:	H314	Causes severe skin burns and eye damage.
	:	H318	Causes serious eye damage.

GHS PRECAUTIONARY HAZARDS	:	P101	If medical advice is needed, have product container or label at hand.
	:	P102	Keep out of reach of children.
	:	P103	Read label before use.
	:	P260	Do not breathe dust/fume/gas/mist/vapors/spray.
	:	P264	Wash skin and contaminated clothing thoroughly after handling.
	:	P270	Do not eat, drink, or smoke when using this product.
	:	P280	Wear suitable protective gloves / protective clothing / eye protection / face protection.
	:	P301+P330 +P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
	:	P310	Immediately call a POISON CENTER or doctor/physician.
	:	P303+P361 +P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	:	P305+P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	:	P305+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position.
	:	P330	Rinse mouth if ingested.
	:	P405	Store locked up.
	:	P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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OSHA HAZARDS : Target Organ Effect (Respiratory System)
TARGET ORGANS : Respiratory System
CLASSIFICATION SYSTEM: : NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
NFPA ratings (scale 0-4): : Health = 3, Fire = 0, Reactivity = 1
HMIS ratings (scale 0-5): : Health = 3, Fire = 0, Reactivity = 1

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION : Mixtures
DESCRIPTION : Mixture of the substances listed below with nonhazardous additions.

COMPONENT	PERCENT	CAS #	EC #	GHS CLASS
Phosphoric acid	10-20	7664-38-2	231-633-2	Skin Corrosion Category 1B, Eye Damage Category 1
Hydrochloric acid	10-20	7647-01-0	231-595-7	Skin Corrosion Category 1, Eye Damage Category 1 Specific Target Organ Toxicity-Single Exposure Category 3, (respiratory system)
Proprietary Surfactant	0.1-2.0	Proprietary	Proprietary	Acute Toxicity Oral Category 4 Serious Eye Damage Category 1

SECTION 4 – FIRST AID MEASURES

EYE CONTACT : Immediately flush the eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediate call a POISON CENTER or doctor/physician.

SKIN CONTACT : Remove contaminated clothing and shoes. Wash affected skin area with water for at least 15 minutes. Delayed skin damage is possible if the product is not completely washed off. Get immediate medical attention. Wash contaminated clothing before reuse.

SWALLOWING (INGESTION) : If ingested, dilute swallowed material by drinking water. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Immediate call a POISON CENTER or doctor/physician.

INHALATION : When symptoms occur, go into open air, and ventilate suspected area. Remove person to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor/physician.

GENERAL MEASURES : Never give anything by mouth to an unconscious person. Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Water spray, fog, carbon dioxide, foam, dry chemical
SPECIAL HAZARDS (FIRE) : Not flammable.
EXPLOSION HAZARDS : Product is not explosive.
REACTIVITY (FIRE) : Thermal decomposition generates: Corrosive vapors. If the product is involved in a fire, it can release explosive hydrogen gas. When heated to decomposition, emits toxic fumes. May be corrosive to metals.

SPECIAL INSTRUCTIONS TO FIRE FIGHTERS

PRECAUTIONARY MEASURES : Exercise caution when fighting any chemical fire.
FIREFIGHTING INSTRUCTIONS : Use water spray or fog for cooling exposed containers.
PROTECTION DURING FIREFIGHTING : Do not enter fire area without proper protective equipment, including respiratory protection.

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HAZARDOUS COMBUSTION PRODUCTS : Potassium oxides. May liberate toxic gases. Sodium oxides. Phosphorous oxides. Nitrogen oxides. Carbon oxides (CO, CO_2). Explosive Hydrogen gas.

OTHER INFORMATION (FIRE) : Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUSTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES : Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.

ENVIRONMENTAL PRECAUTIONS : Keep spilled material away from sewage/drainage systems and waterways. If amounts exceeding the Reportable Quantity (5000 lbs. as phosphoric acid) are released, notification of the National Response Center (800) 424-8802 is required. See section15 for more information.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP : All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink, or smoke when using this product. Wash hands and forearms thoroughly after handling.

CONDITIONS FOR SAFE STORAGE : Store in a dry, cool, and well-ventilated place. Keep container closed when not in use. Keep/store away from extremely high or low temperatures, direct sunlight, heat, and incompatible materials (Strong acid, Strong oxidizers).

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE) : The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

COMPONENT	USA OSHA PEL – TWA	USA ACGIH TWA	USA ACGIH – STEL
Phosphoric acid	1 mg/m^3	1mg/m^3	3mg/m^3
Hydrochloric acid	5 ppm	5 ppm	2 ppm (Ceiling)
Proprietary Surfactant	Not Established	Not Established	Not Established

EYE PROTECTION : Wear chemical splash goggles or face shield.

SKIN PROTECTION : Minimize contact with product. Wear chemical resistant coveralls, boots, gloves, apron and/or suitable long-sleeved clothing.

RESPIRATORY PROTECTION : In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

VENTILATION : Ensure adequate ventilation.

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ADDITIONAL MEASURES	:	Emergency eyewash and safety shower facilities should be available in the immediate work area.
REQUIRED WORK/HYGIENE	:	Wash hands thoroughly after handling. Keep away from all food stuffs, beverages, and feed. Do not eat, drink, or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	:	Transparent yellow/brown liquid.
ODOR	:	acidic odor
ODOR THRESHOLD	:	Not available
PH	:	< 2.0
MELTING POINT/FREEZING POINT	:	Not available
BOILING POINT	:	Not available
FLASHPOINT	:	Not applicable
EVAPORATION RATE	:	Not available
FLAMMABILITY	:	Nonflammable, Noncombustible
LOWER FLAMMABILITY LIMIT	:	Not applicable
UPPER FLAMMABILITY LIMIT	:	Not applicable
VAPOR PRESSURE	:	Not available
VAPOR DENSITY (AIR=1)	:	Not available
RELATIVE DENSITY	:	1.15
SOLUBILITY IN WATER	:	Soluble in water
PARTITION COEFFICIENT n-OCTANOL/WATER	:	Not available
AUTOIGNITION TEMPERATURE	:	Not available
DECOMPOSITION TEMPERATURE	:	Not available

SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY	:	Thermal decomposition generates: Corrosive vapors. If the product is involved in a fire, it can release explosion hydrogen gas. When heated to decomposition, emits toxic fumes. May be corrosive to metals.
STABILITY	:	Stable under recommended storage conditions.
HAZARDOUS CONDITIONS TO AVOID	:	Direct sunlight. Extremely high or low temperatures. Heat. Combustible materials. Incompatible materials.
INCOMPATIBLE MATERIALS	:	Chlorinated products such as bleach, alkaline materials, metals, metal powder, carbides, chlorates, fumigates, nitrates, picrates, strong oxidizers, reducing or combustible organic material. Hazardous gases are evolved on contact with chemicals such as chlorine bleach, cyanides, sulfides and carbides.
HAZARDOUS DECOMPOSITION PRODUCTS	:	Carbon oxides (CO, CO_2). Thermal decomposition generates: Corrosive vapors. Toxic gases. Hydrogen gas. Nitrogen oxides. Phosphorous oxides. Sodium oxides. Potassium oxides.

SECTION 11 – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION	:	**Phosphoric Acid**
ACUTE ORAL TOXICITY	:	LD50 (rat) is greater than 1,530 mg/kg: not acutely toxic by oral exposure. (TFI Product Testing Results, OECD Guideline 425).
ACUTE DERMAL TOXICITY	:	LD50 (rat) is greater than 3,160 mg/kg (ppm); not acutely toxic by dermal exposure. (TFI Product Testing Results, OECD Guideline 402).

ACUTE INHALATION TOXICITY	:	LC50 (guinea pig, mouse, rat, rabbit) is 61-1,689 mg/m3: highly toxic by inhalation. (TFI Product Testing Results)
ACUTE FISH TOXICITY	:	96-hour LC_{50} is 3.0-3.5 mg/L (ppm); moderate toxicity to aquatic organisms. (TFI Product testing Results, OECD Guideline 203).
CARCINOGENICITY	:	No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC, ACGIH, NTP, and OSHA.
TOXICOLOGICAL INFORMATION	:	**Hydrochloric Acid**
ACUTE ORAL TOXICITY	:	LD50 Oral - rabbit - 900 mg/kg
ACUTE INHALATION TOXICITY	:	LC50 Inhalation - rat - 1 h - 3124 ppm
CARCINOGENICITY	:	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, ACGIH, OSHA
SPECIFIC TARGET ORGAN TOXICITY	:	May cause damage to organs.
POTENTIAL HEALTH EFFECTS	:	Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed. Causes burns. Skin: May be harmful if absorbed through skin. Causes skin burns. Eyes: Causes eye burns
TOXICOLOGICAL INFORMATION	:	**Proprietary Surfactant**
ACUTE TOXICITY	:	LD50 Oral (Rat Female): 616 mg/kg. LD50 Dermal (Rabbit): > 3,000 mg/kg.
INHALATION LC50	:	LC50 Inhalation (Rat) 1hr: > 8mg/L. No deaths occurred at this concentration.
PRIMARY SKIN IRRITATION	:	Brief contact may cause moderate skin irritation.
PRIMARY EYE IRRITATION	:	May cause severe irritation with corneal injury which may result in permanent impairment of vision. Chemical burns may occur.
SKIN SENSITIZATION	:	No relevant data found.
RESPIRATORY SENSITIZATION	:	No relevant data found.
CHRONIC TOXICITY	:	No immediate effects known.
CARCINOGENICITY	:	No relevant data found.
REPRODUCTIVE TOXICITY	:	No relevant data found.

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION	:	**Phosphoric Acid**
AQUATIC TOXICITY	:	Mild water pollutant (surface water). May cause eutrophication. Toxic to plankton. Slightly harmful to bacteria. Slightly harmful to aquatic organisms. pH shift. Insufficient data available on eco-toxicity. LC50/96hour:138mg/L (Gambusia Affinis).
PERSISTENCE AND DEGRADABILITY	:	No relevant information available.
BIOACCUMULATIVE POTENTIAL	:	No relevant information available.
NOTES	:	Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted products or large quantities of this product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or un-neutralized. Rinsing larger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms.
ECOLOGICAL INFORMATION	:	**Hydrochloric Acid**
AQUATIC TOXICITY	:	LC50 - Gambusia affinis (Mosquito fish) - 282 mg/l - 96 h

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PERSISTENCE AND DEGRADABILITY	:	No data available
BIOACCUMULATIVE POTENTIAL	:	No data available
ECOLOGICAL INFORMATION	:	**Proprietary Surfactant**
ACUTE TOXICITY TO FISH	:	Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested). LC50, Pimephales Promelas (fathead minnow), 96 Hour, 13.3 mg/l, OECD Test Guideline 203 or Equivalent.
ACUTE TOXICITY TO AQUATIC INVERTEBRATES	:	EC50, Daphnia magna (Water flea), 48 Hour, 12.3 mg/l, Method Not Specified.
PERSISTENCE & DEGRADABILITY	:	Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material has inherent, ultimate biodegradability according to OECD test (s) guidelines (reaches > 60 or 70% biodegradation in OECD test(s). 10-day Window: Not applicable
BIOACCUMULATIVE POTENTIAL	:	Partition coefficient: n-octanol/water(log Pow): 2.08 estimated.
MOBILITY IN SOIL	:	No relevant data found.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL RECOMMENDATIONS	:	This product must be disposed of in accordance with Federal, state, and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.
ECOLOGY-WASTE MATERIALS	:	This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME	:	UN3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID HYDROCHLORIC ACID) 8 PGII
HAZARD CLASS AND LABEL	:	8 (Corrosive)
UN NUMBER	:	UN 3264
PACKAGING GROUP	:	PGII
EPA REPORTABLE QUANTITY (RQ)	:	5000 LBS. (454 KG) as Phosphoric acid or Hydrochloric acid. 100%.
MARINE POLLUTANT	:	Not Listed.
EMERGENCY RESPONSE GUIDE	:	ERG-154

SECTION 15 – REGULATORY INFORMATION

U.S. FEDERAL REGULATORY INFORMATION:

LISTED CARCINOGEN	:	Not listed
TSC STATUS	:	The ingredients of this product are listed on TSCA (Toxic Substances Control Act) inventory (40CFR 710.)
SARA SECTION 302	:	5,000 lbs. (Phosphoric acid and/or Hydrochloric acid).
SARA SECTION 311/312 HAZARD CLASS	:	Chronic health hazard: Dipropylene glycol methyl ether.
SARA SECTION 313	:	Sulfuric acid (as mist/aerosol only). Hydrochloric acid (as mist/aerosol only). Phosphoric acid, CAS No. 7664-38-2, which is subject to the reporting requirements of section 313 of Title III of the Superfund Amendments Act of 1986 and 40 CFR Part 372.

NFPA HEALTH	:	3
NFPA FLAMMABILITY	:	0
NFPA REACTIVITY	:	1

CANADIAN REGULATORY INFORMATION

WHMIS CATEGORY	:	Class E: Corrosive Class D1A: Poisonous and infectious material - Immediate and serious effects - Very toxic.
DOMESTIC SUBSTANCES LIST (DSL)	:	Listed
INGREDIENT DISCLOSURE LIST	:	Listed, this product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the sds contains all the information required by the CPR.

SECTION 16 – OTHER INFORMATION

DISCLAIMER	:	The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. United Formuals assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.
CERCLA	:	Comprehensive Environmental Response, Compensation, and Liability Act.
EINECS	:	European Inventory of Existing Commercial Chemical Substances
IMDG	:	International Maritime Code for Dangerous Goods
IARC	:	International Agency for Research on Cancer
IATA	:	International Air Transportation Association
ACGIH	:	American Conference of Governmental Industrial Hygienists
NFPA	:	National Fire Protection Association (USA)
NTP	:	National Toxicology Program
SARA	:	Superfund Amendments and Reauthorization Act
TSCA	:	Toxic Substances Control Act
HMIS	:	Hazardous Materials Identification System (USA)
WHMIS	:	Workplace Hazardous Materials Information System
LC50	:	Lethal concentration, 50 percent
LD50	:	Lethal dose, 50 percent
STOT	:	Systemic Target Organ Toxicity
DATE PREPARED	:	DEC 23, 2024
DATE REVISED	:	SEP 22, 2025