



MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

PRODUCT NAME: LIME OUT
PART #: LIMEOUT

(HMIS RATINGS)
HEALTH: 2
FIRE: 0
REACTIVITY: 1

PRODUCT INFORMATION (800) 262-0012	MEDICAL EMERGENCY (856) 455-4555
TRANSPORTATION EMERGENCY CHEMTREC (800) 424-9300	DISTRIBUTOR / MANUFACTURER NATIONAL REFRIGERANTS, INC. 661 KENYON AVE. ROSENHAYN, NJ

HAZARDOUS INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200)

Phosphoric Acid (CAS# 7664-38-2)
Citric Acid (CAS# 77-92-9)
Surfactant Package (CAS # NA)

EXPOSURE LIMITS: 8 HR. TWA

OSHA PEL	ACGIH TLV
1mg/cu.m	1mg/cu.m
NE	NE
NE	NE

HAZARDS IDENTIFICATIONS

ROUTE(S) OF ENTRY: Inhalation? No Skin? Yes Ingestion? Yes
HEALTH HAZARDS (ACUTE & CHRONIC): Material is corrosive in nature. Can cause severe chemical burns. If mixed or comes in contact with chlorine based material can cause dangerous fumes.
CARCINOGENICITY: NTP? No IARC? No OSHA Regulated? No
SIGNS AND SYMPTOMS OF EXPOSURE: Skin redness or irritation, respiratory irritation, nausea, dizziness.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Skin or respiratory sensitivity.

FIRST AID MEASURES

INHALATION: Remove to fresh air.
EYE CONTACT: Hold eyelids open and flush with water immediately and continue for 15 minutes.
SKIN CONTACT: Remove contaminated clothing and wash affected area with soap and water.
INGESTION: Drink plenty of water and or egg whites.
SEEK MEDICAL ATTENTION IN ALL CASES.

FIRE FIGHTING MEASURES

FLASH POINT: None
FLAMMABLE LIMITS: LOWER: Not Applicable UPPER: Not Applicable
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained respiratory protection should be provided for firemen fighting in buildings or confined areas.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Thermal decomposition emits toxic fumes or oxide of phosphorus.
EXTINGUISHING MEDIA: All types are acceptable.



ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL: Dike spill, add water and soda ash to neutralize spill. Collect and hold in a plastic container.

HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING STORAGE: Keep away from heat, sparks, open flame or direct sunlight. Do not puncture or incinerate.

OTHER PRECAUTIONS: Intentional misuse by deliberately concentration and inhaling vapor contents can be harmful.

EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use NIOSH approved respirator if limits are exceeded.

VENTILATION: Local exhaust: Yes Mechanical exhaust (General): Yes
Special: None Other: None

PROTECTIVE GLOVES: Polyfluorinated or polyvinyl alcohol or viton.

EYE PROTECTION: Safety goggles or face shield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Plastic or rubber apron.

WORK/HYGIENIC PRACTICES: Wash hands after use.

PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE: @ 70° F 8-2 MM HG

SPECIFIC GRAVITY: (H2O=1) : 1.5-1.7

SOLUBILITY IN WATER: Complete

APPEARANCE & ODOR: Light green color, slight odor

VAPOR DENSITY: (Air=1) Non-Volatile

EVAPORATION RATE: (N-BUTYL ACETATE=1) >1

BOILING POINT: 240° F

MELTING POINT: None

STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: See below

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxides and alkaline agents.

HAZARDOUS DECOMPOSITION OR PRODUCTS: See fire hazards.

HAZARDOUS POLYMERIZATION: Will not occur.

TOXICOLOGICAL INFORMATION

No Data Available.

ECOLOGICAL INFORMATION

No Data Available.

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of all waste in accordance with local, state and federal regulations.



TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Phosphoric Acid
HAZARD CLASS: 8
IDENTIFICATION NUMBER: UN1805
PROPER SHIPPING DESCRIPTION: Phosphoric Acid, 8, UN1805 PGIII

REGULATORY INFORMATION

No Data Available.

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DATE OF LATEST REVISION/REVIEW: 10/09
PERSON RESPONSIBLE FOR MSDS: Ray Madariaga