



# MATERIAL SAFETY DATA SHEET

## PRODUCT IDENTIFICATION

**PRODUCT NAME: LIME OUT**  
**PART #: LIMEOUT**

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

<b>PRODUCT INFORMATION</b> (800) 262-0012	<b>MEDICAL EMERGENCY</b> (856) 455-4555
<b>TRANSPORTATION EMERGENCY</b> CHEMTREC (800) 424-9300	<b>DISTRIBUTOR / MANUFACTURER</b> 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.



# MATERIAL SAFETY DATA SHEET

## 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.



# MATERIAL SAFETY DATA SHEET

## TRANSPORTATION INFORMATION

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

## REGULATORY INFORMATION

No Data Available.

\*\*\*\*\*

National Refrigerants, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other methods of use of the product and of the information referred to herein are beyond the control of National Refrigerants. National Refrigerants expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

**DATE OF LATEST REVISION/REVIEW:** 1/2013  
**PERSON RESPONSIBLE FOR MSDS:** Matt Callahan