INNOVATIVE CHEMICAL CORPORATION

7769 95th Street South
Cottage Grove, MN 55016

SAFETY DATA SHEET

Revision Date: 7/9/2015

Emergency Phone: 1-800-535-5053 (Infotrac)

Section 1: Identification

Product Name: Lime Out

Code: 98PLO00

Chemical Type: Liquid

Manufacturer/Supplier:
Innovative Chemical Corporation
7769 95th Street South
Cottage Grove, MN 55016
651-649-1762

Section 2: Hazard(s) Identification

OSHA/HCS status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture:

SKIN CORROSION/IRRITATION - Category 1

Serious Eye Damage - Category 1

Label elements

Signal word: Danger, Warning

Hazard statements: Causes severe skin burns and eye damage
May cause skin and eye irritation.

Precautionary Statements

Prevention: Wear protective gloves: > 8 hours (breakthrough time): butyl rubber. Wear eye or face protection: Recommended: splash goggles. Wear protective clothing: Recommended: safety apron. Wash hands thoroughly after handling

Response: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. 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 physician.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Hazards not otherwise classified: None known.

Section 3: Composition/Information on Ingredients

Substance or mixture: Mixture

Other means of identification: Not available.

CAS number/other identifiers

CAS number: Not applicable.

Hazardous Components			
Chemical Name		**%weight**	**CAS**
Phosphoric acid, solution		≥25 - <50	7664-38-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational limits, if available are listed in Section 8.

Section 4: First-Aid Measures

Description of first aid measures

Eyes	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Get medical attention if irritation occurs.
Inhalation	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Get medical attention if irritation occurs.
Skin	Get medical attention immediately. Call a poison center of physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Get medical attention immediately. Call a poison center of physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by a medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recover position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Get medical attention if irritation occurs.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	Causes serious eye damage
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes severe burns.
Ingestion	No known significant effects or critical hazards

Over-exposure signs/symptoms

Eye contact	Adverse symptoms may include: Pain, watering, redness
Inhalation	No specific data.
Skin contact	Adverse symptoms may include: Pain or irritation, redness, blistering may occur
Ingestion	Adverse symptoms may include: Stomach pains

Indication of any immediate medical attention needed

Notes to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatment	No specific treatment.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Decomposition products may include the following materials: Phosphorus oxides.
Protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal

	protective equipment. Wear appropriate respirator when ventilation is inadequate.
For emergency responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Approach release upwind Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may be prone to the same hazard as the spilled product Note: see Section 1 for emergency contact information and section 13 for waste disposal.

Section 7: Handling and Storage

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stores and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information on hygiene measures.
Conditions for safe storage including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: Exposure Controls/Personal Protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Phosphoric acid, solution	**ACGIH TLV (United States, 4/2014).** TWA: 1 mg/m³ 8 hours. STEL: 3 mg/m³ 15 minutes **OSHA PEL 1989 (United States, 3/1989).** TWA: 1 mg/m³ 8 hours. STEL: 3 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 1 mg/m³ 10 hours. STEL: 3 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 1 mg/m³ 8 hours.

Appropriate engineering controls	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate technique should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation.
Respiratory	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Eyes/Face	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: splash goggles.
Hands	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several

	substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): butyl rubber.
Skin/Body	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 9: Physical and Chemical Properties

Physical state Liquid
Color Yellow
Odor None Added
Odor threshold Not available
pH 2
Melting Point Not available
Boiling Point Not available
Flash Point Closed cup: Not applicable. [Product does not sustain combustion.]
Evaporation rate Not available
Flammability (solid, gas) Not available
Lower and upper explosive (flammable) limits Not available
Vapor pressure Not available
Vapor density Not available
Relative density 1.1594
Solubility Easily soluble in cold and hot water.
Partition coefficient: n-octanol/water Not available
Auto-ignition temperature Not available
Decomposition temperature Not available
Viscosity Not available

Section 10: Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: Stable
Possibility of hazardous reactions: Under normal conditions, hazardous reactions will not occur.
Conditions to avoid: No specific data
Incompatible materials: Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: Alkalis
Hazardous decomposition products: Under normal conditions, hazardous decomposition products should not be produced.

Section 11: Toxicological Information

Acute toxicity

Ingredient name	Result	Species	Dose	Exposure
Phosphoric acid, solution	LD50 Oral	Rat	1.25 g/kg	-

Irritation/Corrosion

Not available

Sensitization
Not available

Mutagenicity
Not available

Carcinogenicity
Not available

Reproductive toxicity
Not available

Teratogenicity
Not available

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available

Information on the likely routes of exposure
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	Causes serious eye damage
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes severe burns.
Ingestion	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	Adverse symptoms may include: pain, watering, redness.
Inhalation	No specific data.
Skin contact	Adverse symptoms may include: Pain or irritation, redness, blistering may occur
Ingestion	Adverse symptoms may include: stomach pains.

Delayed and immediate effects and chronic effects from short and long term exposure
Short term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure

Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects

Not available

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagencity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	4504.5 mg/kg

Section 12: Ecological information

Toxicity

Ingredient name	Result	Species	Exposure
Phosphoric acid, solution	Acute EC50 105 ppm Fresh water Acute LC50 60 ppm Fresh water	Daphnia-Daphnia magna Fish - Lepomis macrochirus	48 hrs 96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}): Not available

Other adverse effects: No known significant effects or critical hazards.

Section 13: Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and it's container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some

product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Section 14: Transport information

Regulatory info	UN number	Proper shipping name	Classes	PG	Environmental hazards	Additional info
DOT Classification	1760	Corrosive liquids, n.o.s. (Phosphoric acid, solution)	8	III	No	**Reportable quantity** 18018 lbs / 8180.2 kg [1863.9 gal / 7055.5] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. **Limited quantity** Yes.
TDG Classification	1760	Corrosive liquids, n.o.s. (Phosphoric acid, solution)	8	III	No	**Explosive Limited and Limited Quantity Index** 5
Mexico Classification	1760	Corrosive liquids, n.o.s. (Phosphoric acid, solution)	8	III	No	-
ADR/RID Class	1760	Corrosive liquids, n.o.s. (Phosphoric acid, solution)	8	III	No	**Tunnel Code** (E)
IMDG Class	1760	Corrosive liquids, n.o.s. (Phosphoric acid, solution)	8	III	No	-
IATA-DGR Class	1760	Corrosive liquids, n.o.s. (Phosphoric acid, solution)	8	III	No	-

Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available

Section 15: Regulatory information

U.S. Federal regulations

TSCA 8(a) CDR Exempt/Partial exemption: Not determined
All components are listed or exempted.
Clean Water Act (CWA) 311: Phosphoric acid, solution

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602 Class I Substances Not Listed

Clean Air Act Section 602 Class II Substances Not Listed

DEA List I Chemicals (Precursor Chemicals) Not Listed

DEA List II Chemicals (Essential Chemicals) Not Listed

SARA 302/304 No products found

SARA 304 RQ Not applicable.

SARA 311/312 Classification Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Phosphoric acid, solution	≥25 - <50	No	No	No	Yes	No

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall **include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.**

State regulations

Massachusetts: The following components are listed: PHOSPHORIC ACID
New York: The following components are listed: PHOSPHORIC ACID
New Jersey: The following components are listed: PHOSPHORIC ACID
Pennsylvania: The following components are listed: PHOSPHORIC ACID

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not Listed

Montreal Protocol (Annexes A, B, C, E)
Not listed

Stockholm Convention on Persistent Organic Pollutants
Not listed

Rotterdam Convention on Prior Inform Consent (PIC)
Not listed

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed

International lists:

National Inventory	**Australia (AICS):**	All components are listed or exempted.
	Canada:	All components are listed or exempted.
	China (IECSC):	All components are listed or exempted.
	Europe:	Not Determined.
	Japan:	All components are listed or exempted.
	Malaysia:	Not Determined.
	Korea:	All components are listed or exempted.
	New Zealand:	All components are listed or exempted.
	Philippines (PICCS):	All components are listed or exempted.
	Taiwan:	All components are listed or exempted.

Section 16: Other information

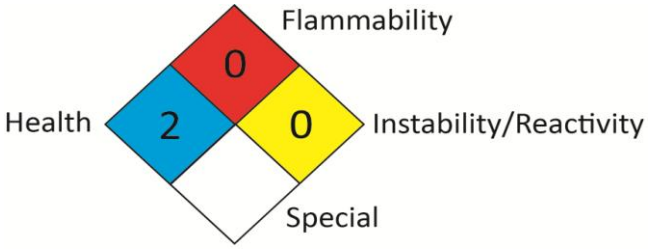
Hazardous Material Information System (U.S.A.):

Health	***2**
Flammability	**0**
Physical hazards	**0**

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association:



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the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Skin Corr. 1, H314	On basis of test data
Eye Dam. 1,H318	On basis of test data

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist