Safety Data Sheet

LIME X

SECTION 1. IDENTIFICATION

Product Identifier	LIME X
Other Means of Identification	L2245
Recommended Use	Acid Cleaner.
Restrictions on Use	Industrial Use Only - Keep Away from Children.
Distributed By	Russell Hendrix, 10808 - 120 Street, Edmonton, AB T5H 3P7, Canada
Supplier Identifier	Russell Hendrix, 10808 - 120 Street, Edmonton, AB T5H 3P7, Canada CANUTEC,
Emergency Phone No.	613 966 - 6666, 24 Hours
	Alberta Poison Centre, (800) 332 - 1414, 24 Hours
SDS No.	0172

SECTION 2. HAZARD IDENTIFICATION

Classification

Corrosive to metals - Category 1; Acute toxicity (Oral) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1

Label Elements

Signal Word:
Danger

Hazard Statement(s):
May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.

Precautionary Statement(s):
Prevention:
Do not breathe dusts or mists.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.

Storage:
Store in corrosion resistant container with a resistant inner liner.

Disposal:
Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Phosphoric acid solutions	7664-38-2	30-50		
Alcohols, C12-15, ethoxylated propoxylated, liquids	68551-13-3	1-5		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If breathing is difficult, get medical attention.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Wash with plenty of water. Call a Poison Centre or doctor if you feel unwell.
Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the face. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Guard against aspiration of liquid into lungs. Keep head below hips to prevent aspiration. Clean mouth with water and drink plenty of water aftwards. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can cause severe irritation of the nose and throat. If swallowed: can burn the lips, tongue, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea. If in eyes: may cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result. If on skin: contact can cause pain, redness, burns, and blistering. Permanent scarring can result.

Immediate Medical Attention and Special Treatment

Medical Conditions Aggravated by Exposure

Dermatitis, asthma.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Can react with metals to produce highly flammable hydrogen gas. Closed containers may rupture violently when heated releasing contents.
In a fire, the following hazardous materials may be generated: irritating chemicals; toxic chemicals; corrosive phosphorous oxides.

Special Protective Equipment and Precautions for Fire-fighters

Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray. Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours, sufficient oxygen. Use water spray to flush spills away from ignition sources. Stop leak before attempting to put out the fire. Product could form an explosive mixture and reignite. If a fire occurs in the vicinity of the material, isolate materials not yet involved in the fire, and move containers from the fire area if this can be done without risk. If not possible, cool fire-exposed material with flooding quantities of water to absorb heat, keep containers cool and procted fire-exposed material.
Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.
Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: get expert advice. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Contaminated absorbent poses the same hazard as the spilled product.
Small spills or leaks: neutralize with Soda ash and lime agents. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: remove or recover liquid using pumps or vacuum equipment. Neutralize remaining solution after recovery, or entire spill cautiously. Neutralize with Soda ash and lime agents.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Avoid breathing in this product. Prevent skin contact. Do not get in eyes. Do not swallow. Only use where there is adequate ventilation. Avoid generating vapours or mists. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Avoid heating that will increase the amount of vapours. Wear personal protective equipment to avoid direct contact with this chemical. Never add water to a corrosive. Always add corrosives slowly to COLD water.
Properly vent drums to prevent pressure buildup. Do not handle swollen drums. Contact supervisor for advice. Keep containers tightly closed when not in use or empty.
General hygiene considerations: wash hands thoroughly after handling this material. Immediately remove any clothing

General hygiene considerations: wash hands thoroughly after handling this material. Immediately remove any clothing which becomes wet or heavily contaminated. Launder clothes before rewearing. Inform laundry personnel of product hazard(s).

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity).
Do not handle swollen drums. Get expert advice. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.
Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Phosphoric acid solutions	1 mg/m3	3 mg/m3	1 mg/m3			

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use a corrosion-resistant exhaust ventilation system separate from other ventilation systems. Exhaust directly to the outside, taking any necessary precautions for environmental protection.
Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyvinyl chloride, Viton®, Viton®/butyl rubber, Barrier® (PE/PA/PE), Silver Shield®, Saranex®, ChemMAX® 3. Etc.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear colourless.
Odour	Odourless
Odour Threshold	Not available
pH	< 1
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	~ 3.4
Relative Density (water = 1)	1.2
Solubility	Soluble in all proportions in water

Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); ~ 1 centipoises (dynamic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Incompatible materials.

Incompatible Materials

Oxidizing agents (e.g. peroxides), strong bases (e.g. sodium hydroxide), reactive metals.
Corrosive to: aluminum alloys, copper alloys (e.g. brass and/or bronze).

Hazardous Decomposition Products

Toxic chemicals; irritating chemicals; corrosive phosphorous oxides.
Anatarox is oxidized slowly by air at room temperature. Decomposition may form compounds such as smaller polymers, ethylene glycol, propylene glycol, formaldehyde, formic acid, glyoxal and dioxalane.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Alcohols, C12-15, ethoxylated propoxylated, liquids		1350 mg/m3 (rat)	
Phosphoric acid solutions	213 mg/m3 (rat) (4-hour exposure)	1530 mg/kg (rat)	1260 mg/kg (rabbit)

Skin Corrosion/Irritation

Human experience and animal tests show skin corrosion.

Serious Eye Damage/Irritation

Human experience and animal tests show serious eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause severe nose and throat irritation. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Skin Absorption

No information was located.

Ingestion

May cause severe irritation or burns to the mouth, throat and stomach. Risk of stomach perforation, convulsion and death.

Aspiration Hazard

May be drawn into the lungs (aspirated) if swallowed or vomited.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above.
Following skin contact: symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Phosphoric acid solutions	Not evaluated			

Not known to cause cancer.

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

This section is not required by OSHA HCS 2012. This section is not required by WHMIS 2015.

SECTION 14. TRANSPORT INFORMATION

This section is not required by WHMIS 2015. This section is not required by OSHA HCS 2012.

UN 1805 PHOSPHORIC ACID SOLUTION CLASS 8, III

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

This section is not required by OSHA HCS 2012. This section is not required by WHMIS.

SECTION 16. OTHER INFORMATION

SDS Prepared By Chemisphere Solutions Ltd
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Key to Abbreviations

IARC = International Agency for Research on Cancer
HSDB® = Hazardous Substances Data Bank
OSHA = US Occupational Safety and Health Administration

References

CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).