

**FRANK'S****MAINTENANCE PRODUCTS INC.**

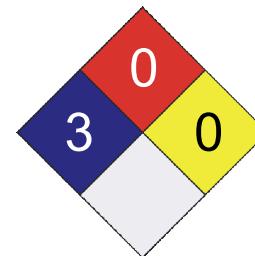
www.chemshop.ca

Chem-shop™**MATERIAL SAFETY DATA SHEET****1. Product and Company Identification**

Product Name	Lime-A-Way
CAS #	Mixture
Product Use	Descaler
Manufacturer	Frank's Maintenance Products Inc. 1299 Strasburg Rd Kitchener, Ontario N2R 1H2 Canada Phone (519) 748-4433 Fax (519) 748-5397
CANUTEC	(613) 996-6666

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/	3
Flammability	0	
Physical Hazard	0	
Personal Protection	C	

**2. Hazards Identification****Emergency Overview**

DANGER. Causes skin and eye burns.

Potential short term health effects**Routes of exposure**

Eye, Skin contact, Inhalation, Ingestion.

Eyes

Causes chemical burns. May cause blindness.

Skin

Causes chemical burns.

Inhalation

May cause respiratory tract irritation or chemical burns.

Ingestion

Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

Target organs

Eyes. Respiratory system. Skin.

Chronic effects

Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

Signs and symptoms

The product causes burns of eyes, skin and mucous membranes.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Phosphoric acid	7664-38-2	30 - 60
Hydroxyacetic acid	79-14-1	5 - 10

4. First Aid Measures**First aid procedures****Eye contact**

Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact

Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.

Inhalation

If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion

Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

General advice

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting Measures

Flammable properties	Not flammable by WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Alcohol foam. Carbon dioxide.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of phosphorus. Hydrogen chloride.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use. Should not be released into the environment.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits	Exposure limits
Ingredient(s)	
Hydroxyacetic acid	ACGIH-TLV Not established
Phosphoric acid	ACGIH-TLV TWA: 1 mg/m ³ STEL: 3 mg/m ³
Engineering controls	General ventilation normally adequate.
Personal protective equipment	
Eye/Face protection	Wear chemical goggles.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code. Use of an impervious apron is recommended.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	Clear
Colour	Colourless

Form	Liquid
Odour	Odourless
Odour threshold	Not available
Physical state	Liquid
pH	<1
Freezing point	Not available
Boiling point	Not available
Flash point	None
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not applicable
Flammability Limits in Air, Upper, % by Volume	Not applicable
Vapour pressure	Not available
Vapour density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Solubility (H₂O)	Not available
Auto-Ignition temperature	Not applicable
Viscosity	Not available
Percent volatile	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Reacts violently with alkaline material. This product may react with reducing agents. Do not mix with other chemicals.
Incompatible materials	Reducing agents. Caustics.
Hazardous decomposition products	May include and are not limited to: Oxides of phosphorus. Hydrogen chloride.
Possibility of hazardous reactions	Not available

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Hydroxyacetic acid	7.7 mg/l/4h rat
Phosphoric acid	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Hydroxyacetic acid	1950 mg/kg rat; 1920 mg/kg guinea pig
Phosphoric acid	1530 mg/kg rat

Effects of acute exposure

Eye	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation or chemical burns.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.
Mutagenicity	Non-hazardous by WHMIS criteria.
Reproductive effects	Non-hazardous by WHMIS criteria.
Teratogenicity	Non-hazardous by WHMIS criteria.

12. Ecological Information

Ecotoxicity effects	Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. Components of this product have been identified as having potential environmental concerns.		
Ecotoxicity – Freshwater Fish Species Data			
Hydroxyacetic acid	79-14-1	96 Hr LC50 Brachydanio rerio:>5000mg/L [static]	
Phosphoric acid	7664-38-2	96 Hr LC50 Gambusia affinis: 3-3.5mg/L	
Ecotoxicity – Water Flea Data			
Phosphoric acid	7664-38-2	12 Hr EC50 Daphnia magna: 4.6 mg/L	
Environmental effects	Harmful to aquatic life.		
Aquatic toxicity	Not available		
Persistence and degradability	Not available		
Bioaccumulation/accumulation	Not available		
Partition coefficient	Not available		
Mobility in environmental media	Not available		
Chemical fate information	Not available		

13. Disposal Considerations

Waste codes	Not available
Disposal Instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG)

Basic shipping requirements:

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid)
Hazard class	8
UN number	3264
Packaging group	II
Additional Information:	
Special provisions	16



15. Regulatory Information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.		
Canada – WHMIS – Ingredient Disclosure List			
Hydroxyacetic acid	79-14-1	1 %	
Phosphoric acid	7664-38-2	1%	
WHMIS classification	Class E - Corrosive Material		
WHMIS status	Controlled		
WHMIS labelling			



Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Effective Date

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Expiry Date

12 - May 2016

Prepared by

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