



Maintenance Solutions

Lime-Off

Non-Foaming Descaler



For Use On:

Stainless	Coffee Urns	Sinks
Steel	Glasses	Utensils
Ceramics	Yogurt	Dishes
Fixtures	Machines	

DESCRIPTION

A multi-purpose, non-foaming acid cleaner which removes mineral deposits and other difficult acid susceptible soils. This product removes lime, food film, and scale from stainless steel, aluminum, ceramic, and plastics. For use in food service areas, dairies, washrooms, shower rooms, laboratories, veterinary areas, and general housekeeping. Excellent for use on dishwashers, coffee urns, steamtables, and other food service equipment.

DIRECTIONS

—To remove light or medium build up in dishwashers, fill tank 3/4 full, add one gallon of this product to tank, turn on and circulate until lime disappears.

—For glassware, use 1/2 ounce per gallon of water and soak glasses until clear of lime build up, rinse thoroughly.

—To clean yogurt machines and coffee urns, use 3 ounces of product per 2 gallons of hot water. Swab down interior, drain and flush thoroughly.

—On steamtables, brush or spray full strength. Let stand for 5 minutes, fill with hot water. Brush steamtable thoroughly, drain and rinse with clean water.

PRODUCT SPECIFICATIONS

Active Ingredients:	40.0 ± 0.5%	Sequestration:	Excellent
Color:	Light pink	Detergency:	Excellent
Odor:	Mild	Rinsability:	Excellent
Base:	Sequestering acids	Fumes:	None
pH:	1.0 - 1.5	Flash Point:	None (waterbased)
Viscosity:	Water thin	Biodegradability:	Complete
Foam:	Low	Storage/Stability:	2 years
Abrasives:	None	Weight per Gallon:	11.67 lbs./gal.
Solubility:	Complete with water	Freeze / Thaw Stability:	Keep from freezing

SECTION 1-PRODUCT IDENTIFICATION AND SUPPLIER INFORMATION

Manufacturer's Name: Misco Products Corporation	Product Name: Lime Off
Manufacturer's Address: 1048 Stinson Drive Reading, PA 19605	Generic Name: Non-Foaming Descaler
Manufacturer's Phone #: (610) 926-4106	Chemical Family: Acid Detergent Blend
	Formula: Proprietary

SECTION 2-INGREDIENT INFORMATION

CHEMICAL NAME	CAS NO.	WT. %	PEL	TWA-TLV	STEL-TLV
Water	7732-18-5	to 100			
Phosphoric Acid	7664-38-2	35 to 40	1mg/M ³	1mg/M ³	3mg/M ³
Nonionic Surfactant	9016-45-9	0 to 5			
Dye	N/A	0 to 5			

SECTION 3-PHYSICAL DATA

Boiling Point (°F): 210 F.	Specific Gravity: 1.401
Vapor Pressure: <20mm Hg @ 68 F.	Vapor Density (Air=1): >1
% Volatile: 60+	pH: 1.0-1.5
Solubility in Water: Complete	Evaporation Rate (Water=1): <1
Physical Description: Thin pink liquid with characteristic odor.	

SECTION 4-FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): N/A
Upper Explosion Limit: N/A
Lower Explosion Limit: N/A
Extinguishing Media: N/A
Special Firefighting Procedures: Non Flammable
Unusual Fire and Explosion Hazards: N/A

SECTION 5-REACTIVITY DATA

Stability: Stable	Hazardous Polymerization: None
Hazards Decomposition Products: Phosphoric oxide vapors in a fire. Hydrogen gas evolved when in contact with aluminum.	Incompatibility (Materials to Avoid): Strong alkalis and oxidizers. Avoid contact with aluminum, brass, soft metals.

SECTION 6-STORAGE AND HANDLING INFORMATION

Corrosive. Keep out of reach of children. For use by trained personnel only. Keep container closed during storage. For institutional and industrial use only. Avoid contact with eyes, skin and clothing. Wear rubber gloves and protective eyewear when handling. Wash hands after use. Avoid breathing of vapors. Use in well-ventilated area. Avoid contact with aluminum. Do not mix with any other chemicals or cleaners

SECTION 7-HEALTH HAZARDS AND FIRST AID

Effects of Overexposure:
Skin: Severe skin irritant. Prolonged or repeated contact can cause chemical burns or dermatitis.
Eyes: Severe eye irritant. Liquid and mists may burn or injure eyes, causing corneal damage.
Inhalation: May be irritating to mucous membranes of the nose, throat, and lungs.
Ingestion: Irritating and corrosive to the mouth and throat. May cause headache, nausea, abdominal pain, vomiting and diarrhea. Excessive amounts may cause collapse.
First Aid Procedures:
Skin: Flush exposed area with large quantities of water. Seek medical attention if irritation persists.
Eyes: Flush with large quantities of water, holding eyelids open. Seek medical attention immediately.
Inhalation: Get to fresh air. Seek medical attention if irritation persists.
Ingestion: Do not induce vomiting. Drink large quantities of water. Seek medical attention immediately.

SECTION 8-SPECIAL PROTECTION INFORMATION

Respiratory Protection: Use in well-ventilated area.
Ventilation Requirements: Provide local exhaust to keep TLV of Section 2 ingredients below acceptable limit.
Protective Gloves: Acid proof rubber or viton.
Eye Protection: Safety glasses or chemical splash goggles.
Other Protective Equipment: Eyewash station, chemical resistant apron and boots.

SECTION 9-SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material is Released or Spilled: Floors will become slippery. Avoid walking in product. Keep unessential personnel away. Mop up or otherwise absorb and hold disposal. Avoid discharge to sewer or open waterways.
Waste Disposal Method: Any method in accordance with local, state and federal laws. Best method is to recycle or reuse for intended purpose. Consult local authorities for disposal in public sewer. Do not dispose of into storm drain, stream, river or to ground. Rinse container thoroughly before discarding in trash.

SECTION 10-REGULATORY INFORMATION

SARA Title III - Section 311/312 -Hazard Categories:	Shipping Information:
No - Fire Hazard	FOR CONTAINERS > 1 Gallon: Compounds, cleaning liquid
No - Sudden Release of Pressure Hazard	(phosphoric acid), 8, NA-1760, PGIII
No - Reactivity Hazard	FOR 1 GALLON CONTAINERS: Compounds, cleaning liquid
Yes - Immediate (acute) Health Hazard	(phosphoric acid), 8, NA-1760, PGIII (Limited Quantity)
No - Delayed (chronic) Health Hazard	FOR CONTAINERS < 1 GALLON: ORM-D

HMIS Hazardous Materials Identification System

Health	2
Flammability	0
Reactivity	0
Personal Protection	B

FOR EMERGENCY MEDICAL OR TRANSPORT INFORMATION: CHEM-TEL, Inc. @ 800-255-3924 (24 hours, 7 days per week)

This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CAS#	Chemical Name	Percent by Weight
7664-38-2	Phosphoric Acid	38

This product contains the following chemical(s) which have been established to be either a carcinogen or suspected carcinogen.

CAS#	Chemical Name	Percent by Weight
	None	

SECTION 11-OTHER INFORMATION

This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of our products either alone or in combination with other products. It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. This company will accept no liability for damages or loss incurred from the improper handling and use of this product