

Material Safety Data Sheet  
 May be used to comply with  
 OSHA's Hazard Communication Standard,  
 29 CFR 1910.1200. Standard must be  
 consulted for specific requirements

U.S. Department of Labor  
 Occupational Safety and Health  
 Administration  
 (Non-Mandatory Form)  
 OMB no. 1218-0072

Identity ( as used on Label & List)

4 IN 1

Note: Blank spaces are not permitted. If any item  
 is not applicable, or no information is applicable  
 the space must be marked to indicate that.

**Section I**

Distributor's Name :  
 Duraclean International, Inc.

Emergency Telephone Number :  
 847-704-7100

Address (Number, Street):  
 220 Campus Drive

Telephone Number for information :  
 847-704-7100

Address (City, State & Zip Code):  
 Arlington Heights, IL 60004

Date Prepared: January 2, 1989  
 Revised: May 31, 1990

Manufacturer's Name:  
 Misco International Chemicals  
 Wheeling, IL 60090  
 (3125379400-FW)

Signature of Preparer: Henry Hakewill, Jr.  
 \*Based upon information provided by Manufacturer.

**Section II - Hazardous Ingredients / Identity Information**

Hazard Components (Specific Chemical Identity): (Specific Chemical Identity: Common Name(s)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% Opt.
Hydrochloric Acid		5 ppm	Approx. 23.0	
Phosphoric Acid		1 mg/l		1.0

Product contains above ingredient and other components that are not considered hazardous.

**Section III - Physical / Chemical Characteristics**

Boiling Point (°F) greater than:	212	Specific Gravity (H2O=1)	1.045
Vapor Pressure (mmHg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1) greater than	1	Evaporation Rate (Butyl Acetate = 1)	N/A

Solubility in Water  
 complete

Appearance and Odor  
 Viscous red liquid with citrus odor.

**Section IV - Fire and Explosion Hazard Data**

Flash Point (Method Used) N/A	Flammable Limits (In air)	LEL N/A	UEL N/A
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Extinguishing Media  
 Carbon dioxide, dry chemical or other.

**Section IV - Fire and Explosion Hazard Data cont.****Special Fire Fighting Procedures**

Use self-contained breathing apparatus equipped with full-face piece operated in pressure demand or other positive mode.

**Unusual Fire and Explosion Hazards**

Product can release hydrogen gas which will form explosive mixtures with air. Also can emit toxic and corrosive fumes when heated to decomposition.

**Section V - Reactivity Data**

Stability	Unstable		Conditions to Avoid
	Stable	X	Heat

**Incompatibility (Materials to Avoid)**  
Strong alkalies, oxidizing agents.

**Hazardous Decomposition or Byproducts**  
Hydrogen and hydrogen chloride fumes.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will not Occur	X	N/A

**Section VI - Health Hazard Data**

Route(s) of Entry:                      Inhalation?    yes                      Skin?    yes                      Ingestion?    yes

**Health Hazards (Acute and Chronic)**      **DANGER: CORROSIVE** causes severe burns and damage to eyes and skin. If inhaled will damage nasal passages, throat and lungs. If swallowed, will damage mucous membranes in mouth, throat and stomach and is toxic.

**Carcinogenicity:**                      NPT?                      IARC Monographs?                      OSHA Regulated?  
N/A

**Signs & Symptoms of Exposure**

Redness and irritation of skin. Conjunctivitis and corneal necrosis of eyes. Rhinitis and palpitation results when inhaled. Irritation of mouth and vomiting result when ingested.

**Medical Conditions**

**Generally Aggravated by Exposure**

Dermatitis, breathing problems.

**Emergency and First Aid Procedures**

**Eye contact:** flush eyes with water for a least 15 minutes and obtain prompt medical attention

**Skin contact:** flush skin with large amounts of water & consult a physician if irritation persists. Remove contaminated clothing & launder before reuse.

**Inhalation:** remove to fresh air promptly & administer oxygen if overcome by fumes. Call a

Emergency and First Aid Procedures cont.  
physician.

Ingestion: give large volumes of water to dilute & get immediate medical attention.

### Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Cover contaminated surface with sodium bicarbonate or a soda ash/slaked lime mixture to neutralize. Add water to form a slurry.

Waste Disposal Method

Follow Federal, State and Local regulations.

Precautions to be Taken in Handling and Storing

Store in original container in a cool, dry area. DO NOT mix with other chemicals.

### Section VIII - Control Measures

Respiratory Protection (Specify Type)

not normally required

Ventilation	Local Exhaust: adequate	Special: N/A
	Mechanical (General) adequate	Other N/A
Protective Gloves: rubber	Eye Protection: goggles or face shield	

Other Protective Clothing or Equipment  
apron, boots, jacket and trousers made of rubber or neoprene.

Work/Hygienic Practices

avoid contact with skin & eyes. Read & follow all instructions on the product label.

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