



5332 Dansher Road
Countryside, Illinois 60525

MATERIAL SAFETY DATA SHEET

Revision Date: 2/5/2011
Supersedes Date: 8/12/2005

MSDS No. N008

Emergency Phones: 708-579-8100 (NYCO)

800-424-9300 (CHEMTREC)

PLEASE NOTE: This MSDS is being provided to your company for the purpose of providing current health and safety information to your management and for your employees who work with this material. Please read the information on these sheets, and then provide this information to those people at your company whose responsibility it is to comply with FEDERAL and STATE RIGHT-TO-KNOW regulations. Also make this information available to any employee who requests it. It is your obligation to comply with these regulations.

SECTION I - PRODUCT IDENTITY

PRODUCT NAME: D-Lime Scale Remover

Formula: Mixture, Hydrochloric Acid and additives in water.

Chemical Type: Inorganic Acid

HMIS RATINGS

Health = 3 (Serious)	Flammability = 0 (Insignificant)
Reactivity = 0 (Minimal)	Protection = D (Face Shield, Gloves, Synthetic Apron)

SECTION II - HAZARDOUS INGREDIENTS

	<u>PERCENT</u>	<u>TLV</u>	<u>CARCINOGEN</u> <u>(OSHA,TP,IARC)</u>
Hydrochloric Acid CAS No. 7647-01-0)	> 25%	5 ppm	None

SECTION III - CHEMICAL AND PHYSICAL

Appearance: Brown Liquid	Boiling Point: EST 180 °F.
Odor: Muriatic Acid	Melting Point: N/A
pH: <1	Spec. Gravity (H ₂ O = 1): 1.13
Water Solubility: Completely	Vapor Pressure (Mm Hg): 39 (75 °F)
Viscosity @ 25°C: < 25 cps (Brookfield)	VOC Content: None (N.A.)

SECTION IV - FIRE AND EXPLOSION HAZARDS

Flash Point (Method): None	Explosion Limits:	Upper: N/A
		Lower: N/A

Extinguishing Media: N/A (product is non-flammable)

Special Firefighting Procedures and Hazards: Avoid skin and eye contact, and breathing of acid vapors. Wear head and body protection and HCl respirator if exposure to liquid is likely.

SECTION V - REACTIVITY INFORMATION

Stable: Unstable:

Precautions:

Incompatibility: strong alkalis, materials not resistant to strong acids, active metals (zinc, aluminum, magnesium, etc.).

Hazardous Decomposition Products: Hydrogen chloride vapors. Contact with active metals can release flammable gas

Hazardous Polymerization: Occurs: Does Not Occur: x

SECTION VI - HEALTH HAZARDS - PROTECTIVE MEASURES - FIRST AID

Inhalation:	Breathing of vapor can cause respiratory irritation and inflammation. Breathing of mist or liquid can cause burns. Wear approved HCl vapor/mist respirator if exposure is likely. Remove to fresh air. Give artificial respiration or oxygen if needed. Get prompt medical attention.
Skin:	Corrosive. Causes irritation and burns. Wear acid-resistant protective gloves, boots, and clothing. Provide convenient safety showers. Remove contaminated clothing. Flush skin thoroughly with water for 15 minutes. Get medical attention if burns persist.
Eyes:	Corrosive. Causes eye damage. Wear splash proof goggles. Provide convenient eyewash stations. Flush immediately with water for 15 minutes. Get prompt medical attention.
Ingestion:	Corrosive. Causes irritation and burning in mouth, esophagus, throat and stomach. Avoid swallowing. Drink lots of water or, preferably, milk. Get medical attention if effects persist. Do not induce vomiting.

Most likely routes of entry: Skin, Eyes, Inhalation, Ingestion

Other Important Medical or Precautionary Information: Overexposure to product has the following effects: Inhalation of vapors may cause pulmonary edema, collapse of circulatory system and damage to the upper respiratory system and collapse. Inhalation may cause coughing, throat burning, choking, bronchitis and difficult breathing. Ingestion is harmful and may be fatal. Ingestion may cause burns.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Spills and Leaks: Small spills can be flushed into normal drainage or into ground with copious amounts of water, or taken up with absorbent material. Larger spills should be contained by diking or other methods and held for collection and/or reuse, or for neutralization with alkali before collection & disposal. People should use eye and skin protection & respirator.

Storage and Handling: Check daily for any leaks from containers, vessels, pumps, and piping. Have water hoses and alkali (caustic soda, lime, etc.) convenient. Only use containers and equipment designed for acid service.

Waste Disposal: If neutralized, may be disposable in sewers if local regulations permit. Otherwise, send to licensed treatment and disposal facility. As supplied, this product is a RCRA hazardous waste.

Empty Containers: Rinse well before handling and disposal.

Other Precautions: Areas of use and storage should be ventilated adequately to reduce vapors below odor level.

SECTION VIII - REGULATORY INFORMATION

Reportable for SARA Title III, S.313 (Form R): Hydrochloric Acids

The information herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge. However, Nyco Products cannot give any guarantees regarding information from other sources, and expressly does not make any warranties, nor assumes any liability, for its use.