

MATERIAL SAFETY DATA SHEET

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SECTION 1 – PRODUCT IDENTIFICATION

Product Name COOLING TOWER DESCALER (XUPERSOL)	Product Type 25 LITERS
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SECTION 2 – HAZARDOUS INGREDIENTS

INGREDIENT	CAS	OSHA PEL	AGGIH TLV	% or Range
Hydrochloric Acid 33%	7647-01-0	1 mg/m³	1 mg/m³	> 33
Hydrochloric Acid 55%	7664-93-3	3 ppm³	3 ppm³	< 12

SECTION 3 - PHYSICAL DATA

Boiling pt (c) 109°C (212°F)	Sg (H2O = 1) 1.18	Melting pt -74°C (-101°F)
Vapor Pressure (MMHG) 17	Vapor Density (AIR = 1) 1.0	Appearance and Odor Colourless Maroon, Fuming Liquid
Solubility in water Complete	Evaporation Rate (H2O = 1) 1.0	pH 3 to 4

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flammability as per CPSC Flame Extension Test: Flash point NONE (T.C.C)	Flammable limit - Upper N/A	Lower N/A
Extinguishing media Using extinguishing media appropriate for surrounding fire		
Special Fire Fighting Procedures Self-contained breathing apparatus. Full coverage impervious gear.		
Unusual Fire and Explosion Hazard Extinguishing all nearby source of ignition, Flammable hydrogen gas liberated from contact with some metal.		

SECTION 5 - REACTIVE DATA

Stability Stable	Incompatibility (Material to avoid) Alkaline products, ammonia, chlorine bleach, oxidizer
Hazardous Decomposition Products Excess heat and contamination of any kind may liberate hydrogen fluoride.	
Polymerization Will not occur	

SECTION 6 – HEALTH HAZARDS

Route(s) of entry	Inhalation YES	Skin YES	Ingestion YES	Eyes YES	
Effects of over exposure	Very corrosive to skin and eyes.				
Inhalation:	Mists extremely corrosive nose and throat. Painful & burning, chronic effects respiratory.				

EMERGENCY AND FIRST AID PROCEDURES

EYES	Hold eyelids apart and flood eyes with running water for at least 15 minutes. A 1% calcium gluconate solution should be used to wash eyes for 10-15 minutes and then instilled every 2-3 hours. A physician or preferable an eye specialist should be called IMMEDIATELY .
SKIN	Painful detection may be delayed. If suspected contact, treat as contact. Wash affected area of skin with copious amounts of water. A calcium gluconate gel (2.5 %) or 1% zepbrine chloride wash should be rubbed in until pain has subside. SEEK IMMEDIATE MEDICAL HELP.
Ingestion	Drink large amounts of water, then swallow milk of 2 oz of milk of magnesia. DO NOT INDUCE WOMITING. SEEK IMMEDIATE MEDICAL ATTENTION.
Inhalation	Remove to fresh air. SEEK IMMEDIATE MEDICAL ATTENTION.

SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND USE

Step to be taken in case container is punctured and material is released.	
Small spills	Neutralize with dilute alkaline and flush with water to drain.
Large spills	Absorb spill with vermiculite – shovel into clean container for disposal.
Waste Disposal Method	Deposits in landfill in accordance with local, state and federal regulations.

SECTION 8 – SPECIAL PROTECTION INFORMATION

Respiratory Protection	Need to protect from exposure to mists and fumes. Use approve NIOSH high efficiency respirator for hydrogen fluoride.	
Ventilation	Local exhaust adequate.	
Protective Glove	Chemical resistance rubber or plastic.	Eyes Protection Chemical goggles recommended.
Other	Do not eat, drink or smoke in work area. Wash hands before eating.	

SECTION 9 – SPECIAL PRECAUTION:

Precaution to be taken on handling and storage Keep container closed when not in use. Store away from other chemicals.	
Special Precautionary Statement Keep this and all chemicals out of reach of children.	
NOTICE:	We believe that the information contained o this material safety data sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements. No warranty, expressed or implied of merchantability, fitness or otherwise is made.