

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT IDENTIFICATION

Product Name COOLING TOWER DESCALER (XUPER SOL)	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/m ³	1 mg/m ³	> 33
Hydrochloric Acid 55%	7664-93-3	3 ppm ³	3 ppm ³	< 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 - <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">Upper</td> <td style="width: 50%; text-align: center;">Lower</td> </tr> <tr> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </table>	Upper	Lower	N/A	N/A
Upper	Lower				
N/A	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 PRECAUTIONS

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.

SECTION 10 – STABILITY AND REACTIVITY

Stability	: Stable
Incompatibility (Material to avoid)	: Acids and acid product. Soft metals, Oxidizers.
Hazardous Decomposition Products	: Carbon Dioxide, Heat, Carbon Monoxide
Hazardous	: May occur
Polymerization	: Will not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Exposure to component solvent vapor-concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiration system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Prolonged or repeated contact with the product may cause removal of actual fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

The liquid splashed in the eye may cause irritation and reversible damage.

SECTION 12 – ECOLOGICAL INFORMATION

Currently no data is available on the product itself. The product should not be allowed to enter water courses or the soil. The Air Pollution Control equipment of regulations made under the Environment Protection Act may apply to the use of this product.

SECTION 13 – DISPOSAL CONSIDERATION

Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the Control of Solution Act and the Environment Protection Act. Using information provided in this data sheet, advice should be obtained from the Environment Agency whether the special waste regulations apply.

SECTION 14 – TRANSPORT INFORMATION

Transport by road – lorry
 Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

SECTION 15 – REGULATORY INFORMATION

The product is classified and labeled for supply in accordance with the latest CHIP Regulations.	
Danger Symbol :	Xn
Danger Classification :	Harmful
Product contains: Sodium Hydroxide (R phrases)	10 - Inflammable 22 - Harmful if swallowed 37/38 - Irritating to respiratory system and skin 41 - Risk of serious damage to eyes. 57 - Vapor may cause drowsiness and dizziness.
Labeling for industrial users (S phrases)	25 - Do not breathe spray dust/solvent vapor. 26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 39 - Wear eye/Face protection 46 - If swallowed, seek medical advice immediately and show this container or label. 51 - use only in well – ventilated areas

NATIONAL REGULATIONS

The control of Substances Hazardous to Health Regulations 1988
The Manual Handling Operations Regulations 1992
Storage of Packaged Dangerous Substances, HS (G)71
The Environment Protection Act.
The Highly Flammable Liquids and Liquefied Petroleum Gases
Regulations 1972 (SI 1972:917)
Storage of flammable Liquids and Liquefied Petroleum Gases

SECTION 16 – OTHER INFORMATION

The product should not be used for purpose other than shown in the Technical Data Sheet without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirement of relevant legislation are complied with.

The information of this material safety data sheet is given for safety requirement only and is based on the present state of our knowledge. This data is not to be understood as a guarantee of specific properties of our product. It is always the responsibility of the user to take all steps necessary to comply with existing laws and regulations.