

LIQUID SCALE REMOVER (revised September 2010)

Material Safety Data Sheet

SECTION I - COMPANY IDENTIFICATION

PRODUCT: VIRGINIA SCALE REMOVER, LIQUID

CAT. NO.: WL1, WL5, WL55 & WL5C

MANUFACTURED BY:

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SECTION II - HAZARDOUS INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200)

Hydrochloric acid (CAS# 7647-01-0)
Tetradecyldimethylamine (CAS# 112-75-4)

EXPOSURE LIMITS: 8 HR. TWA

OSHA PEL	ACGIH TLV
CL 5ppm	CL 5ppm
ND	ND

SECTION III - HAZARDS IDENTIFICATIONS

EMERGENCY OVERVIEW: DANGER! Corrosive. Harmful if swallowed or inhaled. Tissue damage to skin and eyes on contact.

POTENTIAL HEALTH EFFECTS:

INHALATION: Symptoms may include coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

EYE CONTACT: Contact leads to immediate irritation and burning with destruction of eye tissue.

SKIN CONTACT: Contact leads to immediate irritation and burning sensation followed by destruction of skin tissue. Absorption is unlikely. May aggravate pre-existing skin disorders.

INGESTION: Material is corrosive and toxic.

CHRONIC Effects: None established.

NOTE:

CARCINOGENICITY: LISTED IN NTP? No

IARC? No

OSHA Regulated? No

SECTION IV - FIRST AID MEASURES

INHALATION: Remove victim to fresh air and, if needed, immediately begin artificial respiration. Give oxygen if breathing is labored. Get emergency medical help. Contact a physician immediately.

EYE CONTACT: Flush eyes with water for 15 minutes. Get medical attention if symptoms develop and persist.

SKIN CONTACT: Flush with water or soap and water for 15 minutes or until all traces have been removed. Seek medical attention if symptoms develop and persist.

INGESTION: Do not induce vomiting. Rinse mouth out with water. Get immediate medical attention.

SECTION V - FIRE FIGHTING MEASURES

FLASHPOINT (TEST METHOD): None - aqueous solution.

FLAMMABLE LIMITS: LOWER: NA

UPPER: NA

AUTOIGNITION TEMPERATURE: NE

GENERAL HAZARD: Acrid smoke and toxic fumes.

FIRE FIGHTING INSTRUCTIONS: Approach fire from upwind side. Avoid breathing smoke, fumes, mist or vapors on the downwind side. Firefighters wear protective clothing and self contained breathing apparatus.

EXTINGUISHING MEDIA: Dry powder, carbon dioxide (CO₂), water fog or spray.

HAZARDOUS COMBUSTION PRODUCTS: Acrid smoke, toxic fumes of Cl, CO, and CO₂.

SECTION VI - ACCIDENTAL RELEASE MEASURES

LAND SPILL: Emergency response coordinator must have mandated training. Eliminate all ignition sources. **SMALL SPILLS:** Pick up with absorbent materials and place in non-leaking containers; seal tightly for proper disposal or reuse. **LARGE SPILLS:** Evacuate the hazard area of unprotected personnel. Wear appropriate respirator and protective clothing. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels.

WATER SPILL: Notify proper authorities. Clean up leaks/spills immediately to prevent soil or water contamination.

SECTION VII - HANDLING AND STORAGE

HANDLING: Always add acid to water, never water to acid. Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown in section IV. Launder contaminated clothing before reuse.

STORAGE: Store in a cool place away from ignition sources. Store away from oxidizers.

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LIQUID SCALE REMOVER (revised September 2010)**SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING CONTROLS:** Local exhaust ventilation is recommended.**PERSONAL PROTECTION:** Rubber polyethylene or similarly chemical impervious gloves, chemical goggles or full face shield. Boots, aprons, drench showers, eye wash as needed for protection against spills and/or splashes.**SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES****VAPOR PRESSURE:** NA**SPECIFIC GRAVITY (H₂O=1):** 1.1**SOLUBILITY IN WATER:** Complete**pH:** <2**BOILING POINT:** 230 F**APPEARANCE & ODOR:** Clear to slightly hazy liquid, odorless.**VAPOR DENSITY (Air=1):** ND**EVAPORATION RATE (BuAc=1):** ND**VOC (G/L):** 0**FREEZING POINT:** ND**SECTION X - STABILITY AND REACTIVITY****STABILITY:** Stable.**CONDITIONS TO AVOID:** High temperatures.**MATERIALS TO AVOID:** Alkaline materials, metals.**HAZARDOUS DECOMPOSITION PRODUCTS:** From combustion: Acrid smoke, CO, CO₂, toxic fumes of chlorine .**HAZARDOUS POLYMERIZATION:** Will not occur.**SECTION XI - TOXICOLOGICAL INFORMATION**

Hydrochloric acid	LDLo: 81 mg/kg	(unr - man)
	LD50: 900 mg/kg	(oral - rabbit)
	LCLo: 1300 ppm/30 min.	(inh - human)
	LCLo: 3000 ppm/5 min.	(inh - human)

Tetradecyldimethylamine	LD50: 700 mg/kg	(oral - rat)
	LD50: 4.4 g/kg	(dermal - rabbit)

SECTION XII - ECOLOGICAL INFORMATION

Dangerous to aquatic life in high concentrations.	Hydrochloric acid	282 ppm / 96 hr / mosquito fish / TLm / fresh water
		100-330 ppm / 48 hr / shrimp / LC50 / salt water

SECTION XIII - DISPOSAL CONSIDERATIONS

Dispose as hazardous waste. Classification and documentation is required before disposal. Follow all local, state and federal regulations.

SECTION XIV - TRANSPORTATION INFORMATION**PROPER SHIPPING NAME:** Corrosive liquids,n.o.s.(hydrochloric acid)**HAZARD CLASS:** 8**IDENTIFICATION NUMBER:** UN1760**DOT Emergency Guide #:** 157**Reportable Quantity (RQ):** Not applicable**International:** UN 1760, Corrosive liquids,n.o.s.(hydrochloric acid),8, PGII**SECTION XV - REGULATORY INFORMATION****TSCA (Toxic Substance Control Act):** Components of this product are listed on the TSCA Inventory.**CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):** Reportable quantity is 5000 pounds (hydrochloric acid).

Contact local authorities for other reporting requirements.

SARA TITLE III (Superfund Amendments and Reauthorization Act): Not listed.**CALIFORNIA PROPOSITION 65:** Not listed.**SECTION XVI - OTHER INFORMATION**

State Right-to-Know Programs: PA, NJ

NFPA Ratings

Health: 3

Flammability: 0

Reactivity: OHMIS Protective Equipment: X See your supervisor

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