



MATERIAL SAFETY DATA SHEET

SECTION 1 - MANUFACTURER OR SUPPLIER DATA

MSDS NUMBER
100458

MANUFACTURER'S NAME & MAILING ADDRESS U S Chemical Corporation 316 Hart Street Watertown, Wisconsin 53094 USA	PREPARED BY D. E. Kenas	SIGNATURE <i>David E. Kenas</i> F
	TITLE Quality Assurance Manager	DATE 12-20-99
EMERGENCY TELEPHONE NO. (24 HOUR SERVICE) Medical Emergency ONLY: 1-800-851-7145 Ext. 075	PRODUCT INFORMATION TELEPHONE NO. (8 AM TO 5 PM CST. MON - FRI) Product Information: 1-800-558-9566	

SECTION 2 - IDENTITY OF MATERIAL

PRODUCT NAME AQUA-SOLV			
PRODUCT DESCRIPTION Lime Solvent (Acid Detergent)		FORMULA Proprietary Blend	CHEMICAL FAMILY N.A.
REGULATED IDENTIFICATION	DOT PROPER SHIPPING NAME CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS HYDROCHLORIC ACID, PHOSPHORIC ACID)		
	SHIPPING ID NUMBER UN3264	PACKING GROUP II	HAZARD CLASS 8 (CORROSIVE MATERIAL)

SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT N.A.	SPECIFIC GRAVITY (H ₂ O = 1) 1.096	PHYSICAL FORM Liquid	COLOR Orange
VAPOR PRESSURE (mm Hg) N.A.	MELTING POINT N.A.	SOLUBILITY IN WATER Complete	SCENT None Added
VAPOR DENSITY (AIR = 1) N.A.	EVAPORATION RATE (BUTYL ACETATE = 1) N.A.	pH 2500 ppm SOLUTION N.A.	pH CONCENTRATE Less Than 2.0
OTHER Non-Viscous Solution.			

SECTION 4 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (CHEMICAL NAME; COMMON NAME)	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	PERCENT WT/WT
Orthophosphoric Acid: Phosphoric Acid CAS Registry Number 7664-38-2	1 mg/m3 TWA	1 mg/m3 TWA	3 mg/m3 STEL (ACGIH/OSHA)	10.0-30.0
Hydrochloric Acid: Muriatic Acid CAS Registry Number 7647-01-0	5 ppm Ceiling Limit	5 ppm Ceiling Limit	None	1.0-5.0

This product contains no other ingredient considered hazardous according to the criteria of 29 CFR 1910.1200, OSHA. However, this product contains chemicals which may be subject to reporting requirements according to the criteria of SARA Title III, 40 CFR, Part 370, Section 311 and Section 312. This product also contains chemicals which may be subject to reporting requirements according to the criteria of SARA Title III, 40 CFR, Part 372, Section 313.

STATE RIGHT TO KNOW INFORMATION

THIS PRODUCT CONTAINS: WATER/7732-18-5, PHOSPHORIC ACID/7664-38-2, HYDROCHLORIC ACID/7647-01-0

NFPA RATING: Health-3/Flammability-0/Reactivity-0 See Section 5 for Protective Equipment.
HMIS RATING: Health-3/Flammability-0/Reactivity-1 See Section 5 for Protective Equipment.

CARCINOGENICITY:

This product does not contain any known carcinogens or anticipated carcinogens according to the criteria of the NTP Annual Report on Carcinogens, IARC Monographs, and OSHA 29 CFR 1910, Subpart Z.

(CONTINUED IN SECTIONS 5 TO 8)

SECTION 5 - SAFE USAGE DATA

PROTECTIVE EQUIPMENT TYPES	EYES	Splash-proof safety glasses, safety goggles, and an eye-wash station.	
	RESPIRATORY	GLOVES	Rubber or Neoprene.
	None required with normal use.		
	OTHER	Wear full-cover protective clothing to prevent skin contact.	
VENTILATION	GENERAL MECHANICAL	Satisfactory. Maintain adequate ventilation. Keep levels below recommended TLV.	
	LOCAL EXHAUST	Not ordinarily needed. Avoid inhalation of mists containing this product.	
PRECAUTIONS	HANDLING & STORAGE	Follow all label directions. Instruct personnel about proper use, hazards, precautions, and first-aid measures. Avoid inhalation, ingestion and contact with skin and eyes.	
		Rotate stock regularly. Handle carefully to avoid damaging container. Keep container closed when not in use. Recommended storage temp below 100°F. Do not freeze. Keep out of children's reach.	

SECTION 6 - HEALTH HAZARD DATA

EFFECTS OF EXPOSURE	INHALATION	Corrosive. Inhalation of mist may cause irritation to nose, throat and mucous membranes, pulmonary irritation, pulmonary edema, tissue damage and chemical burns.	
	INGESTION	Corrosive. Harmful or fatal if swallowed. May cause nausea, vomiting, and severe tissue damage to digestive tract. Corrosive to mouth, throat, stomach and to other tissues.	
	SKIN & EYES	SKIN: Corrosive. Contact may cause severe irritation, dermatitis, and chemical burns. EYES: Corrosive. Causes eye burns. May cause temporary or permanent vision loss and blindness.	
	ACUTE & CHRONIC	ACUTE: Corrosive to all body tissues. Harmful skin contact may not cause immediate pain. Permanent eye damage may result without immediate first aid treatment. CHRONIC: None Known.	
ROUTES OF ENTRY	INGESTION-X SKIN ABSORPTION-X	TARGET ORGANS	Eyes, Skin, Respiratory System.

SECTION 7 - PHYSICAL HAZARD DATA

FLAMMABILITY	LEL = N.A. UEL = N.A.	FLASH POINT = N.A.	METHOD USED = N.A.
STABILITY	STABLE	X	CONDITIONS TO AVOID Avoid mixing with any other cleaning product. Mix only with water. Do not store at high temperatures. Recommended storage temperature below 100°F.
	UNSTABLE		HAZARDOUS DECOMPOSITION PRODUCTS May react with certain metals to produce flammable hydrogen gas. Mixing with strong alkali can generate steam.
HAZARDOUS POLYMERIZATION	MAY OCCUR	X	CONDITIONS TO AVOID
	WILL NOT OCCUR		N.A.
INCOMPATIBILITY	MATERIALS TO AVOID	Alkaline materials, chlorinated compounds, and metals such as aluminum, zinc, tin, etc., and cyanides, sulfides, and sulfites. Avoid sodium hypochlorite or bleach.	

SECTION 8 - EMERGENCY RESPONSE DATA

FIRE	EXTINGUISHING MEDIA	For fires in area, use appropriate media. For example: Water spray, dry chemical, carbon dioxide, or alcohol foam.
	SPECIAL PROCEDURES	Evacuate area of unprotected personnel. Wear protective clothing, goggles, and face shield. Cool fire-exposed containers with water spray.
	UNUSUAL HAZARDS	Product may react with some metals such as aluminum, zinc, tin, etc., to release flammable hydrogen gas.
FIRST AID MEASURES	INGESTION: Do not induce vomiting. If patient is conscious and can swallow, administer milk or water. SKIN: Remove contaminated clothes, flood with water for 15 minutes. EYES: Flood with lukewarm (not hot) water poured from a large glass 2 or 3 inches from eyes. Remove contacts. Have patient blink as much as possible while flooding the eyes. Continue for 15 minutes. INHALATION: Move victim to fresh air. Give artificial respiration if patient is not breathing. ADMINISTER FIRST AID TREATMENT AS STATED ABOVE, THEN CALL 1-800-851-7145 Ext 075 OR CONTACT PHYSICIAN FOR FURTHER MEDICAL INSTRUCTIONS.	
	SPILLS	STEPS TO BE TAKEN Wear proper protective equipment including rubber boots. Stop leak if you can do so without risk. Dike or dam large spills. Ventilate area if needed. Soak up with sand or other non-combustible inert absorbent materials. Flush area with water and follow with normal clean-up procedures. Keep combustibles away! Be careful as spills are slippery.
RG - N.A.	WASTE DISPOSAL METHOD	Comply with all federal, state, and local regulations. Consult state and local authorities for restrictions on disposal of chemical waste. If approved, may be diluted and drained to a municipal sewer or waste treatment plant. Rinse empty container thoroughly with water before discarding. Please recycle empty container whenever possible.

THE DATA IN THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND DOES NOT RELATE TO ITS USE IN COMBINATION WITH ANY OTHER MATERIAL OR PROCESS. THE DATA CONTAINED IS BELIEVED TO BE ACCURATE. HOWEVER, SINCE USE CONDITIONS VARY AND ARE OUTSIDE OUR CONTROL, THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, AND ASSUMES NO LIABILITY FOR FAILURE TO FOLLOW PRODUCT USE DIRECTIONS AND SAFETY PRECAUTIONS.