



MATERIAL SAFETY DATA SHEET

SECTION 1 - MANUFACTURER OR SUPPLIER DATA

MSDS NUMBER

102036

MANUFACTURER'S NAME & MAILING ADDRESS U S Chemical Corporation 316 Hart Street Watertown, Wisconsin 53094 USA		PREPARED BY D. E. Kenas	SIGNATURE David E. Kenas LL
EMERGENCY TELEPHONE NO. (24 HOUR SERVICE) Medical Emergency ONLY: 1-800-851-7145 Ext. 075		TITLE Quality Assurance Manager	DATE 12-20-99
		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 ENDURE			
PRODUCT DESCRIPTION Heavy Duty Alkaline Chlorinated Mechanical Dishwash		FORMULA Proprietary Blend	CHEMICAL FAMILY N.A.
REGULATED IDENTIFICATION	DOT PROPER SHIPPING NAME CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROXIDE)		
	SHIPPING ID NUMBER UN3262	PACKING GROUP II	HAZARD CLASS 8 (CORROSIVE MATERIAL)

SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT N.A.	SPECIFIC GRAVITY (H ₂ O = 1) N.A.	PHYSICAL FORM Granular Powder	COLOR White
VAPOR PRESSURE (mm Hg) N.A.	MELTING POINT N.A.	SOLUBILITY IN WATER Moderate	SCENT None Added
VAPOR DENSITY (AIR = 1) N.A.	EVAPORATION RATE (BUTYL ACETATE = 1) N.A.	pH 2500 ppm SOLUTION 11.6	pH CONCENTRATE N.A.
OTHER Non-Scented, however, a slight chlorine odor is present.			

SECTION 4 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (CHEMICAL NAME; COMMON NAME)	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	PERCENT WT/WT
Sodium Hydroxide: Caustic Soda CAS Registry Number 1310-73-2	2 mg/m3 Ceiling Limit	2 mg/m3 Ceiling Limit	None	10.0-30.0
Sodium Dichloro-S-Triazinetrione CAS Registry Number 2893-78-9	.5 ppm TWA As Chlorine	.5 ppm TWA As Chlorine	1 ppm STEL As Chlorine (ACGIH/OSHA)	1.0-5.0
Sodium Carbonate: Soda Ash CAS Registry Number 497-19-8	Not Established	Not Established	Not Established	30.0-60.0

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.

STATE RIGHT TO KNOW INFORMATION

THIS PRODUCT CONTAINS: SODIUM CARBONATE/497-19-8, SODIUM CHLORIDE/7647-14-5, SODIUM HYDROXIDE/1310-73-2, SODIUM TRIPOLYPHOSPHATE/7758-29-4, SODIUM DICHLORO-S-TRIAZINETRIONE/2893-78-9, SODIUM POLYACRYLATE/9003-04-7

NFPA RATING: Health-3/Flammability-0/Reactivity-1 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 Safety glasses, safety goggles, and an eye-wash station.	
	RESPIRATORY Dust mask if handling creates air-borne dust.	GLOVES Rubber or Neoprene.
	OTHER Wear full-cover protective clothing to prevent repeated or prolonged contact.	
VENTILATION	GENERAL MECHANICAL Satisfactory. Maintain adequate ventilation. Keep levels below recommended TLV.	
	LOCAL EXHAUST Not ordinarily needed. Avoid inhalation of dust 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 temperature below 100°F. Keep out of children's reach.	

SECTION 6 - HEALTH HAZARD DATA

EFFECTS OF EXPOSURE	INHALATION Corrosive. Inhalation of dust or 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 SKIN-X EYES-X INHALATION-X 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 Mixing with any other cleaning product. Mix only with below 150°F water. Avoid temperature above 100°F and high humidity to prevent caking.
	UNSTABLE		HAZARDOUS DECOMPOSITION PRODUCTS Warning! Mixing with incompatible materials may produce hydrazine, chlorine, hydrogen and other toxic and irritating fumes.
HAZARDOUS POLYMERIZATION	MAY OCCUR	X	CONDITIONS TO AVOID
	WILL NOT OCCUR		N.A.
INCOMPATIBILITY	MATERIALS TO AVOID Phosphoric acid, muriatic acid and other acidic materials, reducing agents, hydrocarbons, alcohols, ether, ammonia, ammoniated compounds and aluminum.		

SECTION 8 - EMERGENCY RESPONSE DATA

FIRE	EXTINGUISHING MEDIA Fight fire with water spray. This product does not support combustion.
	SPECIAL PROCEDURES Use NIOSH certified gas mask with canister for chlorine. If possible, remove container to open air and flood with water.
	UNUSUAL HAZARDS Product may react with some metals such as aluminum, zinc, tin, etc., to release flammable hydrogen gas. This product can react violently with water.
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.
	STEPS TO BE TAKEN Use proper protective equipment. Carefully sweep up and shovel into dry containers without raising dust. Cover containers and move containers out of spill area.
SPILLS	Flush area with water and follow with normal clean-up procedures.
--- RQ - 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. 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.