

1. PRODUCT AND COMPANY IDENTIFICATION

NAME: LIQUIMAC

USE: MECHANICAL DISH DETERGENT

MSDS # 100127

US CHEMICAL, 316 HART STREET, WATERTOWN, WI 53094 USA
 MEDICAL EMERGENCY #: 1-800-851-7145 EXT. 075 USA
 SPILL EMERGENCY #: 1-800-424-9300 USA
 PRODUCT INFORMATION #: 1-800-558-9566 (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
 INTERNET ADDRESS: WWW.USCHEMICAL.COM
 REVIEWED 3-26-10 REVISED 3-26-10 SECTION REVISED: 1

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

DANGER. CORROSIVE LIQUID. CAUSES EYE AND SKIN BURNS.
 HARMFUL OR FATAL IF SWALLOWED.



PRINCIPLE ROUTES OF EXPOSURE: EYES, SKIN, INGESTION, INHALATION.

POTENTIAL ACUTE HEALTH EFFECTS

EYES: CORROSIVE. CAUSES EYE BURNS. MAY CAUSE PERMANENT DAMAGE INCLUDING BLINDNESS WITHOUT IMMEDIATE FIRST AID TREATMENT.

SKIN: CORROSIVE. CAUSES SKIN BURNS. MAY CAUSE PERMANENT DAMAGE.
 HARMFUL CONTACT MAY NOT CAUSE IMMEDIATE PAIN.

INHALATION: CORROSIVE. INHALATION OF MISTS MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.

INGESTION: CORROSIVE. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH.
 HARMFUL OR FATAL IF SWALLOWED.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS #	% BY WT	LC50/LD50
POTASSIUM HYDROXIDE	1310-58-3	10.0 – 30.0	SEE 11.0
SODIUM HYPOCHLORITE	7681-52-9	1.0 – 5.0	SEE 11.0
STATE RIGHT TO KNOW: THIS PRODUCT CONTAINS: WATER/7732-18-5, POTASSIUM HYDROXIDE/1310-58-3, SODIUM HYPOCHLORITE/7681-52-9			

4. FIRST AID MEASURES

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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 AT LEAST 15 MINUTES.

SKIN: REMOVE CONTAMINATED CLOTHES, FLOOD WITH WATER FOR 15 MINUTES.

INHALATION: MOVE VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF PATIENT IS NOT BREATHING.

INGESTION: DO NOT INDUCE VOMITING. IF PATIENT IS CONSCIOUS AND CAN SWALLOW, ADMINISTER MILK OR WATER.

ADMINISTER FIRST AID TREATMENT AS STATED ABOVE, THEN CALL 1-800-851-7145 EXT. 075 OR CONTACT PHYSICIAN FOR FURTHER MEDICAL INSTRUCTIONS.

NOTE TO PHYSICIAN: CALL 1-800-851-7145 EXT. 075 FOR ASSISTANCE WITH THE MANAGEMENT OF EXPOSURES.

5. FIRE-FIGHTING MEASURES

FLAMMABILITY: NO HAZARD.

FLASH POINT: N.A.P.

PRODUCTS OF COMBUSTION: SEE SECTION 10.

SUITABLE EXTINGUISHING MEDIA: FOR FIRES IN AREA, USE APPROPRIATE MEDIA. FOR EXAMPLE: WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE, OR ALCOHOL FOAM.

SPECIFIC HAZARDS: CORROSIVE PRODUCT MAY REACT WITH CERTAIN METALS. SEE 8. AND 10.

SPECIFIC METHODS: NORMAL FIRE FIGHTING PROCEDURES MAY BE USED.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: CORROSIVE. PUT ON PERSONAL PROTECTIVE EQUIPMENT. SEE 8.

SPILL RESPONSE: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PROPER PROTECTIVE EQUIPMENT INCLUDING RUBBER BOOTS. VENTILATE AREA IF NEEDED.

STOP LEAK IF YOU CAN DO SO WITHOUT RISK. DIKE OR DAM LARGE SPILLS.

AVOID DIRECT DISCHARGE TO SEWER AND SURFACE WATERS. PUMP OR SCOOP TO CONTAINER OR SOAK UP WITH NON-COMBUSTIBLE INERT ABSORBENT MATERIALS. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

BE CAREFUL AS SPILLS ARE SLIPPERY.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE RE-USE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: ROTATE STOCK REGULARLY. KEEP CONTAINER CLOSED WHEN NOT IN USE. AVOID TEMPERATURES BELOW 35°F OR ABOVE 120°F. PROTECT FROM FREEZING. STORAGE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT IS RECOMMENDED. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF CHILDREN'S REACH.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS:

POTASSIUM HYDROXIDE = 2 MG/M3 CEILING LIMIT (ACGIH/OSHA)

SODIUM HYPOCHLORITE = 0.5 PPM TWA AS CHLORINE, 1 PPM STEL AS CHLORINE (ACGIH),
1 PPM CEILING LIMIT AS CHLORINE (OSHA)**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SPLASH PROOF SAFETY GLASSES, SAFETY GOGGLES AND AN EYE WASH STATION.**HANDS:** CHEMICAL RESISTANT GLOVES: RUBBER OR NEOPRENE. LONG TYPE IF NEEDED.**RESPIRATORY:** IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION, WEAR SUITABLE RESPIRATOR.**FEET:** TYPICALLY NOT NEEDED. WEAR BOOTS DURING SPILL & WHEN EXPOSURE IS POSSIBLE.**BODY:** IF MAJOR EXPOSURE IS POSSIBLE, WEAR FULL-COVER PROTECTIVE CLOTHING.**9. PHYSICAL AND CHEMICAL PROPERTIES****COLOR:** YELLOW**ODOR:** CHLORINE**pH CONCENTRATE:** GREATER THAN 13.0 (BASIC)**pH @ 2500 PPM SOLUTION:** N.AP.**pH @ USE DILUTION:** N.AP.**PHYSICAL STATE:** LIQUID**SPECIFIC GRAVITY:** 1.270**VISCOSITY:** NON-VISCOUS**BOILING POINT:** N.AP.**MELTING POINT:** N.AP.**FLASH POINT:** N.AP.**UEL:** N.AP.**LEL:** N.AP.**EVAPORATION RATE:** N.AP.**ODOR THRESHOLD:** N.AP**VAPOR PRESSURE:** N.AP**VAPOR DENSITY:** N. AP.**COEFF. OIL/WATER:** N.AP.**WATER SOLUBILITY:** COMPLETE**OTHER:** N.AP.**10. STABILITY AND REACTIVITY****STABLE:** YES**CONDITIONS TO AVOID:** AVOID TEMPERATURES BELOW 35°F OR ABOVE 120°F.**MATERIALS TO AVOID:** AVOID MIXING DIRECTLY WITH ANY OTHER CLEANING PRODUCT. AVOID ACIDS, AMMONIA AND VARIOUS METALS (ALUMINUM, ZINC, TIN, BRASS OR BRONZE) WHICH CAN GENERATE FLAMMABLE HYDROGEN GAS. MIX ONLY WITH WATER.**DECOMPOSITION PRODUCTS:** FIRE OR MIXING WITH INCOMPATIBLE MATERIALS MAY PRODUCE OXIDES OF CARBON AND OTHER TOXIC OR IRRITATING FUMES.**POSSIBILITY OF HAZARDOUS REACTIONS:** AVOID MIXING DIRECTLY WITH ACIDS.**11. TOXICOLOGICAL INFORMATION****ACUTE EFFECTS:** CORROSIVE. SEE SECTION 2.**CHRONIC EFFECTS:** NONE KNOWN. NO REPORTABLE CARCINOGENS, MUTAGENS, SENSITIZERS, SYNERGISTIC MATERIALS, TERATOGENS, OR REPRODUCTIVE TOXINS.**LC50/LD50:** SODIUM HYPOCHLORITE 15%: 5800 MG/KG ORAL-MOUSE LD50

POTASSIUM HYDROXIDE 45%: 273 MG/KG ORAL-RAT LD50

TARGET ORGANS: EYES, SKIN, RESPIRATORY SYSTEM.**OTHER TOXIC EFFECTS:** NONE KNOWN.

12. ECOLOGICAL INFORMATION

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NOT AVAILABLE.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF ACCORDING TO ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION

DOT/TDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS POTASSIUM HYDROXIDE, SODIUM HYPOCHLORITE), 8, UN3266, II

DOT RQ: N.AP.

DOT ERG #: 154

15. REGULATORY INFORMATION

EPA CERCLA RQ: POTASSIUM HYDROXIDE = 1000 LB

EPA REGISTERED: NO

EPA VOC: 0.00%

EPA VOC RULE: THIS PRODUCT DOES NOT CONTAIN VOLATILE ORGANIC COMPOUNDS.

OSHA HAZARDOUS: YES

PHOSPHORUS CONTENT: SEE LABEL

PROPOSITION 65: N.AP.

SARA 311/312 HAZARDS: ACUTE

SARA 313 CHEMICALS: NO

STATE RIGHT TO KNOW: SEE SECTION 3 FOR CHEMICAL NAMES.

TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.

WHMIS CLASS: E

16. OTHER INFORMATION

NFPA RATING: HEALTH-3/FLAMMABILITY-0/REACTIVITY-1/SPECIAL HAZARD-N.AP.

HMIS RATING: HEALTH-3/FLAMMABILITY-0/REACTIVITY-1/PERSONAL PROTECTION-SEE 8.0

N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

PREPARED BY: HEALTH AND SAFETY

NOTICE TO READER

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