VAN WATERS AND ROGERS INC -- MURIATIC ACID ALL GRADES -- 6810-00-236-5665

Product ID:MURIATIC ACID ALL GRADES MSDS Date:01/01/1998 FSC:6810 NIIN:00-236-5665 Status Code:A MSDS Number: CKPYZ === Responsible Party === Company Name: VAN WATERS AND ROGERS INC Address:6100 CARILLON POINT City:KIRKLAND State:WA ZIP:98033-7357 Country:US Info Phone Num:425-889-3400 OR 4 25-889-3617 Emergency Phone Num:1-800-733-3665 Resp. Party Other MSDS Num.:M34514 Preparer's Name: MSDS COORDINATOR CAGE:0STM5 === Contractor Identification === **Company Name: VOPAK USA INC** Address:6100 CARILLON POINT Box:City:KIRKLAND State:WA ZIP:98033-7357 Country:US Phone:425-889-3400/425-889-3617 CAGE:0STM5 Company Name:WAITE R M CO Address:2100 EMBARCADERO SUITE 203 Box:City:OAKLAND State:CA ZIP:94606 Country:US Phone:510-535-1266 Contract Num:SP0450-00-M-SE32 CAGE:0V485

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sition/Information on Ingredients ==========

Ingred Name:WATER CAS:7732-18-5 RTECS #:ZC0110000 Minumum % Wt:64. Maxumum % Wt:91.

Ingred Name:HYDROCHLORIC ACID CAS:7647-01-0 RTECS #:MW4025000 Minumum % Wt:9. Maxumum % Wt:36. OSHA PEL:C7 MG/M3;C5 PPM ACGIH STEL:C7.5 MG/M3;C5 PPM EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

LD50 LC50 Mixture: ACUTE ORAL (RABBIT) LD50: 900 MG/KG Routes of Entry: Inhalation:YES Skin:UNKNOWN In gestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic: TARGET ORGANS: EYES, SKIN, RESPIRATORY TRACT, GASTROINTESTINAL TRACT. INHALATION:MAY RESULT IN COUGHING, BURNING OR CHOKING SENSATION IN THE THROAT. IF INHALED DEEPLY, FLUID MAY COLLECT IN THE LUNGS. E YES: CONTACT RAPIDLY CAUSES SEVERE IRRITATION. IF NOT QUICKLY REMOVED BY THOROUGH IRRIGATION WITH WATER, THERE MAY BE PROLONGED/PERMANENT VISUAL IMPAIRMENT OR TOTAL LOSS OF SIGHT . HYDROGEN CHLORINE ESC APING FROM THE AQUEOUS SOLUTION IS IMMEDIATELY IRRITATING. SKIN: CONTACT MAY CAUSE BURNS & TISSUE DISTRUCTION. INGESTION: CAN CAUSE SEVERE BURNS OF THE DIGESTIVE TRACT. REPEATED (CHRONIC) EXPOSURE: NONE KNOWN. Explanation of Carcinogenicity:NOT KNOWN TO BE CARCINOGENIC. Effects of Overexposure: COUGHING, BURNING, CHOKING, EDEMA, DISCOLORATION OF TEETH, IRRITATION, VISUAL IMPAIRMENT OR TOTAL LOSS OF SIGHT, TISSUE DESTRUCTION.

Medical Cond Aggravated by Exp

## osure:PRE-EXISTING DISORDERS AFFECTING TARGET ORGANS.

First Aid:EYES: IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER FOR AT LEAST 15 MINUTES, FORCIBLY HOLDING EYELIDS APART TO ENSURE COMPLETE IRRIGATION OF ALL EYE AND LID TISSUE. WASHING EYES WITHIN SEVERA L SECONDS IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. GET MEDICAL ATTENTION IMMEDIATELY. SKIN: FLUSH THOROUGHLY WITH COOL WATER UNDER SHO

WER WHILE REMOVING CONTAMINED CLOTHING AND SHOES. DISCARD NO N-RUBBER SHOES. DISCARD NON-RUBBER SHOES. WASH CLOTHING BEFORE REUSE. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

Lower Limits:NONFLAMMABLE

Upper Limits:NONFLAMMABLE

Extinguishing Media:NON-FLAMMABLE/NOMBUSTIBLE. USE AGENTS APPROPRIATE FOR SURROUNDING FIRE. USE WATER SPRAY TO KEEP FIRE-EXPOSED CONTAINERS COOL.

Fire Fighting Procedures: KEEP UNAUTHORIZE

D PERSONNEL REMOVED AND

UPWIND. WEAR NIOSH/MSHA APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard: THIS PRODUCT IS NONFLAMMABLE AND NONEXPLOSIVE UNDER NORMAL CONDITIONS OF USE. AT HIGH TEMPERATURES THIS PRODUCT CAN DECOMPOSE TO GIVE OFF HYDROCHLORIC ACID AND GAS. VAPORS ARE IRRITATING TO THE EYES A ND NOSE. LIQUID IS CORROSIVE TO THE SKIN. THIS PRODUCT ATTACKS MOST METALS WITH THE EVOLUTION OF EXPL

OSIVE HYDROGEN GAS.

Spill Release Procedures: EVACUATE UNNECESSARY PERSONNEL. KEEP UNPROTECTED PERSONNEL UPWIND OF THE SPILL AREA. FOLLOW PROTECTIVE MEASURES PROVIDED UNDER PERSONAL PROTECTION. CONTAIN SPILL WITH DIKE TO PREVENT ENTRY INTO SEWERS OR WATERWAYS. ACCORDING TO 40CFR302 TABLE 302.4 (CERLA), ENVIRONMENTAL RELEASES THAT EXCEED THE RQ MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER BY CALLING 1-800-424-8802.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER. DLA-HMIS STAFF: SODA ASH, SLAKED LIME, BAKING SODA.

Handling and Storage Precautions: KEEP AWAY FROM SOURCES OF IGNITION BECAUSE TOXIC, CORROSIVE AND EXPLOSIVE GASES MAY BE FORMED. OPEN CONTAINER CAREFULLY TO AVOID SPURTING. STORE IN A COOL, VENTILATED AREA AWAY FROM INCOMPATIBLE MATER IALS. DIKE AND VENT STORAGE TANKS. DO NOT STORE IN UNLINE

D CONTAINERS.

Other Precautions:WEAR PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPOR, USE WITH ADEQUATE VENTILATION. WEAR NIOSH/MSHA APPROVED RESPIRATORY PROTECTION IF THERE IS POTENTIAL FOR EXPOSURE ABOVE THE EXPOSURE LIMIT. W ASH THOROUGHLY AFTER HANDLING.

Respiratory Protection:WEAR A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, WHERE AIRBORNE CONTAMINANTS MAY OCCUR.

Vent

ilation:GENERAL ROOM VENTILATION PLUS LOCAL EXHAUST AT POINTS OF EMISSION TO MAINTAIN LEVELS OF AIRBORNE CONTAMINANTS BELOW EXPOSURE LIMITS.

Protective Gloves:WEAR CHEMICAL RESISTANT GLOVES SUCH AS RUBBER, NEOPRENE OR VINYL

Eye Protection:WEAR CHEMICAL SAFETY GOGGLES PLUS FULL FACE SHIELD TO PROTECT AGAINST SPLASHING

Other Protective Equipment:WHENEVER THERE IS A POSSIBILITY OF SPLASH OR CONTACT WEAR A CHEMICAL RESISTANT FULL BODY SUIT AND GLOVES. EMERGENCY SHOWER AND EYE

WASH FACILITY SHOULD BE IN CLOSE PROXIMITY (ANSI Z358.1) Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING. Supplemental Safety and Health

NONE SPECIFIED BY MANUFACTURER.

HCC:C1 Boiling Pt:=60.C, 140.F B.P. Text:140-221F;60-105C Vapor Pres:14.6-80 Vapor Density:1.3@20C Spec Gravity:1.05-1.18 pH:0.2% SOLUTION=2 Solubility in Water:100 Appearance and Odor:CLEAR TO LIGHT AMBER LIQUID WITH A PUNGENT ODOR.

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Stability Indicator/Materials to Avoid:YES

AVOID CONTACT WITH ALKALI METALS OR OTHER ACTIVE METALS AND CERTAIN OF THEIR COMPOUNDS. DO NOT ADD WATER DIRECTLY TO THE PRODUCT. THE PRODUCT MAY BE ADDED TO WATER WITH MIXING AND DILUTION. Stability Condition to Avoid:HEAT, ALKALIS, METALS Hazardous Decomposition Products:GENERATES TOXIC & IRRITATING GASES AT HIGH TEMPERATURES. REACTS WITH METALS WITH THE EVOLUTION OF HYDROGEN WHICH WHEN MIXED IN AIR MAY RESULT IN FIRE OR EXPLOSION IF IGNITED. CHLORINE GAS MAY BE RELEASE Conditions to Avoid Polymerization:WILL NOT OCCUR.

Toxicological Information:HYDROCHLORIC ACID, CAS# 7647-01-0: ACUTE ORAL LD50 (RABBIT): 900 MG.KG. ACUTE INHALATION LC50 (RAT, 1 HR): 3124 PPM.

Ecological:HYDROCHLORIC ACID, CAS# 7647-01-0: AQUATIC ECOTOX DA TA,

FISH: LC50 (96 HR) (MOSQUITOFISH): 282 MG/L; LC100 (24 HR) (TROUT): 10 MG/L. INVERTABRATES: LC50 (48 HR)(STARFISH): 100-330 MG/L; LC50 (48 HR) (SHRIMP): 100-330 MG/L; LC50 (48 HR) (SHORE CRAB): 240 MG/L. AMPHIBIANS: NO DATA AVAILABLE. PLANTS: NO DATA AVAILABLE. TERRESTRIAL ECOTOX DATA: WILDLIFE: NO DATA AVAILABLE. PLANTS: NO DATA AVAILABLE. E NVIRONMENTAL FATE DATA: BIOTIC: NOT APPLICABLE ABIOTIC: NO DATA AVAILABLE. HYDROCHLORIC ACID CAN BE ACUTELY TOXIC IN

AQUATIC LIFE THROUGH REDUCTION IN AQUEOUS PH TO TOXIC LEVELS.

Waste Disposal Methods:THE MATERIALS RESULTING FROM CLEAN-UP OPERATIONS MAY BE HAZARDOUS WASTES AND, THEREFORE, SUBJECT TO SPECIFIC REGULATIONS. PACKAGE, STORE, TRANSPORT, AND DISPOSE OF ALL (CLEAN-UP) MATERIALS AND ANY CON TAMINATED EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

======== MSDS Transpor

Transport Information:DOT PROPER SHIPPING NAME: HYDROCHLORIC ACID, SOLUTION. DOT HAZARD CLASS: 8. DOT IDENTIFICATION NUMBER: UN1789. DOT PACKING GROUP: II. DOT HAZARDOUS SUBSTANCE(S): RQ 5000 LBS (HYDROCHLORIC ACID). DOT M ARINE POLLUTANTS: NOT APPLICABLE. ADDITIONAL DESCRIPTION REQUIREMENT: NOT APPLICABLE.

SARA Title III Information: SARA TITLE III HAZARD CATAGORIES: ACUTE

HEALTH-YES, REACTIVE HAZARD: YES, DELAYED HEALTH: NO; FIRE HAZARD: NO; SUDDEN RELEASE OF PRESSURE. SECTION 302: HYDROGEN CHLORIDE IN THE GAS PHASE IS CLASSIFIED AS AN EXTREMELY HAZARDOUS SUBSTANCE. THIS PRODUCT CONTAINS A TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III AND 40 CFR 372.

Federal Regulatory Information:TSCA: ALL COMPONENTS OF THIS PRODUCT THAT ARE REQUIRED TO BE ON THE TSCA INVENTORY ARE LISTED ON THE

INVENTORY.

State Regulatory Information:HYDROCHLORIC ACID LISTED ON FOLLOWING STATE LISTS: PA ENVIRONMENTAL HAZARDOUS SUBSTANCE, NY HAZARDOUS SUBSTANCES, NJ SPECIAL HEALTH HAZARDOUS SUBSTANCE.

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