



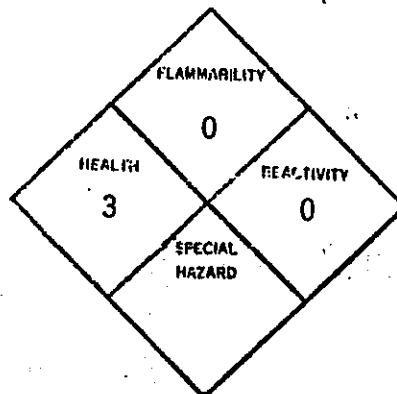
ALL PURE CHEMICAL COMPANY

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MATERIAL SAFETY DATA SHEET # AP1050M

ALL PURE CHEMICAL
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NFPA RATING

PRODUCT IDENTIFICATION

TRADE NAME: 1) ALL PURE MURIATIC ACID
2) ALL PURE MURIATIC ACID II

SYNONYM: HYDROCHLORIC ACID

INGREDIENTS:

HYDROGEN CHLORIDE	CAS # 007647-01-0	31.5%
WATER	CAS # 007732-18-5	BALANCE

PHYSICAL DATA:

BOILING POINT: 168F (81.5C)
VAP PRESS: 25 mmHg, 3.3 kpa @ 20C
VAP DENSITY: (AIR=1) 11.0
SOL. IN WATER: INFINITE.
SP. GRAVITY: 1.16
APPEARANCE: WHITE TO YELLOW CLEAR LIQUID
ODOR: A PUNGENT ODOR

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: NONE

METHOD USED: TCC

FLAMMABLE LIMITS

LFL: NOT APPLICABLE

UFL: NOT APPLICABLE

EXTINGUISHING MEDIA: NON-FLAMMABLE

MATERIAL SAFETY DATA SHEET (CONT.)

FIRE AND EXPLOSION HAZARD DATA (CONT.)

FIRE & EXPLOSION HAZARDS: HYDROCHLORIC ACID ITSELF IS NON-FLAMMABLE. THERE IS, HOWEVER, A LATENT FIRE OR EXPLOSION HAZARD DUE TO HYDROGEN GAS GENERATED WHEN ACID IS IN CONTACT WITH METALS.

FIRE-FIGHTING EQUIPMENT: WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.

REACTIVITY DATA

STABILITY: (CONDITIONS TO AVOID) CONTACT WITH METALS MAY CAUSE GENERATION OF FLAMMABLE CONCENTRATIONS OF HYDROGEN GAS.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) AVOID BASE AND CORROSIVE MATERIALS. AVOID CONTACT WITH MOST METALS. AVOID OXIDIZING MATERIAL, CAN OXIDIZE TO CHLORINE.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

ENVIRONMENTAL AND DISPOSAL INFORMATION

ACTION TO TAKE FOR SPILLS/LEAKS: SMALL QUANTITIES MAY BE FLUSHED WITH COPIOUS QUANTITIES OF WATER; IN CASE OF LARGER AMOUNTS, CONTAIN LIQUID. USE LIMESTONE, LIME, SODIUM BICARBONATE (BAKING SODA) OR SODA ASH TO CAUTIOUSLY NEUTRALIZE SINCE CONSIDERABLE AMOUNTS OF HEAT AND STEAM MAY BE GENERATED ON NEUTRALIZATION.

DISPOSAL METHOD: CONTACT THE DOW CHEMICAL COMPANY FOR FURTHER INSTRUCTIONS.

HEALTH HAZARD DATA

EYE: MAY CAUSE PAIN, LACHRYMATION (TEARS), AND SEVERE IRRITATION WITH CORNEAL INJURY WHICH MAY RESULT IN PERMANENT IMPAIRMENT OF VISION, EVEN BLINDNESS.

SKIN CONTACT: SHORT SINGLE EXPOSURE MAY CAUSE SEVERE SKIN BURNS.

MATERIAL SAFETY DATA SHEET (CONT.)

HEALTH HAZARD DATA (CONT.)

SKIN ABSORPTION: A SINGLE PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN THE MATERIAL BEING ABSORBED THROUGH SKIN IN HARMFUL AMOUNTS. THE DERMAL LD50 HAS NOT BEEN DETERMINED.

INGESTION: INGESTION MAY CAUSE GASTROINTESTINAL IRRITATION OR ULCERATION AND SEVERE BURNS OF THE MOUTH AND THROAT.

INHALATION: EXCESSIVE VAPOR CONCENTRATIONS ARE READILY ATTAINABLE AND MAY CAUSE SERIOUS ADVERSE EFFECTS, EVEN DEATH. EXCESSIVE EXPOSURE MAY CAUSE SEVERE IRRITATION AND INJURY TO UPPER RESPIRATORY TRACT AND LUNGS.

SYSTEMIC & OTHER EFFECTS: REPEATED EXCESSIVE EXPOSURE MAY CAUSE EROSION OF TEETH AND BLEEDING AND ULCERATION OF NOSE, MOUTH AND GUMS. DID NOT CAUSE CANCER IN LONG-TERM ANIMAL STUDIES.

FIRST AID

EYES: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER AT LEAST 30 MINUTES IS IMPERATIVE. PROMPT MEDICAL CONSULTATION IS ESSENTIAL.

SKIN: IMMEDIATE CONTINUED AND THOROUGH WASHING IN FLOWING WATER FOR 30 MINUTES IS IMPERATIVE WHILE REMOVING CONTAMINATED CLOTHING. PROMPT MEDICAL CONSULTATION IS ESSENTIAL.

INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE AMOUNTS OF MILK IF AVAILABLE AND TRANSPORT TO MEDICAL FACILITY.

INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT A PHYSICIAN.

NOTE TO PHYSICIAN: CORROSIVE. MAY CAUSE STRICTURE. IF LAVAGE IS PERFORMED, SUGGEST ENDOTRACHEAL AND/OR ESOPHAGOSCOPIC CONTROL. IF BURN IS PRESENT, TREAT AS ANY THERMAL BURN, AFTER DECONTAMINATION. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

MATERIAL SAFETY DATA SHEET (CONT.)

HANDLING PRECAUTIONS

EXPOSURE GUIDELINE(S): ACGIH TLV AND OSHA PEL ARE 5ppm CEILING.

VENTILATION: CONTROL AIRBORNE CONCENTRATIONS BELOW THE EXPOSURE GUIDELINE. USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION MAY BE NECESSARY FOR SOME OPERATIONS.

RESPIRATORY PROTECTION: WHEN AIRBORNE EXPOSURE GUIDELINES AND/OR COMFORT LEVELS MAY BE EXCEEDED, USE AN APPROVED AIR-PURIFYING RESPIRATOR. FOR EMERGENCY AND OTHER CONDITIONS WHERE THE EXPOSURE GUIDELINE MAY BE GREATLY EXCEEDED, USE AN APPROVED POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS.

SKIN PROTECTION: USE PROTECTIVE CLOTHING IMPERVIOUS TO THIS MATERIAL. SELECTION OF SPECIFIC ITEMS SUCH AS GLOVES, BOOTS, APRON, OR FULL-BODY SUIT WILL DEPEND ON OPERATION. SAFETY SHOWER SHOULD BE LOCATED IN WORK AREA. WASH CONTAMINATED CLOTHING BEFORE REUSE. DISPOSE OF CONTAMINATED SHOES.

EYE PROTECTION: USE CHEMICAL GOGGLES. IF VAPOR EXPOSURE CAUSES EYE IRRITATION, USE A FULL-FACE RESPIRATOR. WEAR A FACE-SHIELD WHICH ALLOWS USE OF CHEMICAL GOGGLES, OR A FULL-FACE RESPIRATOR, TO PROTECT FACE AND EYES WHEN THERE IS ANY LIKELIHOOD OF SPLASHES. EYE WASH FOUNTAIN AND SAFETY SHOWER SHOULD BE LOCATED IN IMMEDIATE WORK AREA.

ADDITIONAL INFORMATION

REGULATORY REQUIREMENTS:

SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED ACCORDING TO EPA HAZARD CATEGORIES PROMULGATED UNDER SECTIONS 311 AND 312 OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 (SARA TITLE III) AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES:

AN IMMEDIATE HEALTH HAZARD
A DELAYED HEALTH HAZARD

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
PREVENT ALL CONTACT WITH EYES AND SKIN. AVOID BREATHING IRRITATING VAPORS.

MATERIAL SAFETY DATA SHEET (CONT.)

ADDITIONAL INFORMATION (CONT.)

SARA 313 INFORMATION:

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT
TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE
III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT
OF 1986 AND 40 CFR PART 372:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
----- HYDROCHLORIC ACID	----- 007647-01-0	----- 32%

U.S. DEPT. OF TRANSPORTATION (D.O.T.) SHIPPING INFORMATION

PROPER SHIPPING NAME: HYDROCHLORIC ACID

IDENTIFICATION NUMBER: UN1789

HAZARD CLASS: CORROSIVE MATERIAL

LABELS REQUIRED: CORROSIVE

REPORTABLE QUANTITY: 5000 lb./2270 kg.

THE INFORMATION IN THIS MSDS HAS BEEN ASSEMBLED BY THE
MANUFACTURER BASED ON WORKS OF OTHERS WHICH ARE FOUND IN
LITERATURE IN THE PUBLIC DOMAIN. IT RELATES TO THE SPECIFIC
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DATE OF LATEST REVISION: MARCH 1, 1990