

REVISION NO. 2

MATERIAL SAFETY DATA SHEET
 ANDERSON LABORATORIES, INC.
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EMERGENCY CONTACT: 1-800-424-9300 (CHEMTREC) TO BE USED "ONLY IN THE EVENT OF
 CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING
 CHEMICALS." DATE: 4-18-91

THE MATERIALS LISTED IN THIS DATA SHEET ARE CLASSIFIED IN ACCORDANCE WITH
 THE DEFINITIONS SET FORTH IN 29CFR PARTS 1910. 1200

- I. PRODUCT NAMES: HYDROCHLORIC ACID, 1% V/V; HYDROCHLORIC ACID, 1.5%V/V
 HYDROCHLORIC ACID, 5% V/V; HYDROCHLORIC ACID, (1+19)
 HYDROCHLORIC ACID, (1+39), ASTM D3372; HYDROCHLORIC ACID, 10% V/V
 HYDROCHLORIC ACID, (1+99); HYDROCHLORIC ACID, 2.00 N
 HYDROCHLORIC ACID, 1.00N; HYDROCHLORIC ACID, 0.500N
 HYDROCHLORIC ACID, 0.400N; HYDROCHLORIC ACID, 0.30 MOLAR
 HYDROCHLORIC ACID, 0.200N; HYDROCHLORIC ACID, 0.250N
 HYDROCHLORIC ACID, 0.100N; HYDROCHLORIC ACID, 0.0200N
 HYDROCHLORIC ACID, 0.050N; HYDROCHLORIC ACID, 0.010N
 HYDROCHLORIC ACID, NORMALITY SOLUTION TO 1.00 NORMAL

CHEMICAL FAMILY: N/A
 DOT SHIPPING NAME: N/R
 DOT HAZARD CLASS: N/R

DOT I.D. NO.: N/R

HAZARD DESIGNATION:

HAZARD MATERIALS IDENTIFICATION SYSTEM

HEALTH: 0
 FLAMMABILITY: 0
 REACTIVITY: 0
 PERSONAL PROTECTION: GLASSES AND GLOVES

- 4 - SEVERE HAZARD
- 3 - SERIOUS HAZARD
- 2 - MODERATE HAZARD
- 1 - SLIGHT HAZARD
- 0 - MINIMAL HAZARD

I. COMPONENTS 1% OR GREATER

CONTAINS CARCINOGENIC COMPOUNDS 0.1% OR GREATER: YES: NO: X

CHEMICAL	CAS. NO.	%	NTP/IARC CARCINOGEN LIST	EXPOSURE LIMITS		
				TLV	STEL	PEL
HYDROCHLORIC ACID	7647-01-0	5%(W/V) MAX	NO	CEILING 5PPM	CEILING 10PPM	CEILING 5PPM
ETHER	7732-18-5	MATRIX	NO	N/A	N/A	N/A

II. PERTINENT PHYSICAL DATA:

BOILING POINT: N/A DEG. C VAPOR PRESSURE: N/A MMHG AT N/A DEG C.
 MELTING POINT: N/A
 EVAPORATION RATE: FASTER SLOWER THAN ETHER. ____X____ NOT APPLICABLE.
 SPECIFIC GRAVITY: NOT APPLICABLE
 VAPOR DENSITY: HEAVIER: X LIGHTER THAN AIR.: NOT APPLICABLE.
 APPEARANCE AND ODOR: COLORLESS FUMING LIQUID WITH CHARACTERISTIC ODOR.

V. FIRE AND EXPLOSION DATA:

FLAMMABILITY CLASSIFICATION: NOT APPLICABLE.
EXTINGUISHING MEDIA: NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS: CONTACT WITH METALS PRODUCES HYDROGEN GAS WHICH MAY FORM EXPLOSIVE MIXTURE WITH AIR.

HEALTH HAZARD DATA:

EFFECTS OF OVER-EXPOSURE: FOR DILUTE SOLUTIONS OF HYDROCHLORIC ACID:
INGESTION: CORROSIVE! SWALLOWING HYDROCHLORIC ACID CAN CAUSE IMMEDIATE PAIN AND BURNS OF THE MOUTH, THROAT, ESOPHAGUS AND GASTROINTESTINAL TRACT.
SKIN CONTACT: CORROSIVE! CAN CAUSE REDNESS, PAIN, AND SKIN BURNS.
EYE CONTACT: CORROSIVE! SPLASHES MAY CAUSE BURNS AND EYE DAMAGE. CHRONIC EXPOSURE: LONG-TERM EXPOSURE TO CONCENTRATED VAPORS MAY CAUSE EROSION OF TEETH. LONG TERM EXPOSURES SELDOM OCCUR DUE TO THE CORROSIVE PROPERTIES OF THE ACID.

AGGRAVATION OF PRE-EXISTING CONDITIONS: PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE DISEASE MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE.

TOXICITY DATA: ORAL-RABBIT, LD50, 900 MG/KG.

TARGET ORGANS: SKIN, EYES AND RESPIRATORY SYSTEM.

PRIMARY ROUTES OF ENTRY: DERMAL: X INHALATION: INGESTION:

EMERGENCY AND FIRST AID PROCEDURES:

INGESTION: DO NOT INDUCE VOMITING! GIVE LARGE QUANTITIES OF WATER OR MILK IF AVAILABLE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN EXPOSURE: IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER. WASH CLOTHING BEFORE RESUE. GET MEDICAL ATTENTION. EYE EXPOSURE: WASH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, LIFTING LOWER AND UPPER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION IMMEDIATELY.

REACTIVITY:

STABILITY: UNSTABLE, STABLE: X

HAZARDOUS POLYMERIZATION: MAY OCCUR, WILL NOT OCCUR: X

HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN GAS WHEN IN CONTACT WITH ACTIVE METALS.

CONDITIONS TO AVOID: STRONG BASES CAN CAUSE REACTION GENERATING HEAT.

INCOMPATIBILITY (MATERIALS TO AVOID) CONCENTRATED HYDROCHLORIC ACID IS HIGHLY REACTIVE WITH STRONG BASES, METALS, METAL OXIDES, HYDROXIDES, AMINES, CARBONATES AND OTHER ALKALINE MATERIALS. INCOMPATIBLE WITH MATERIALS SUCH AS CYANIDES, SULFIDES, SULFITES, AND FORMALDEHYDE.

I. SPILL AND LEAK PROCEDURES:

FOR SMALL SPILLS: COVER WITH SODA ASH AND FLUSH SPILL AREA WITH COPIOUS AMOUNTS OF WATER.

II. SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: NOT APPLICABLE FOR LABORATORY SIZE AMOUNTS.

VENTILATION: NOT APPLICABLE.

PROTECTIVE GLOVES: YES; NO: X

EYE PROTECTION: YES: X NO:

(GLASSES: X GOGGLES:)

APRONS OR LAB COAT: X;

RUBBER APRON:

SPECIAL PRECAUTIONS:

CAUTION! PRODUCT RESIDUE MAY REMAIN ON OR IN "EMPTY" PACKAGE. ALL PRECAUTIONS FOR HANDLING THE PRODUCT MUST BE USED IN HANDLING THE EMPTY PACKAGE AND RESIDUE. CLEAN BEFORE REUSING OR ALTERING PACKAGE.

CAUTION! CAUSES SKIN AND EYE BURNS.

WARNING! HARMFUL IF SWALLOWED.

KEEP CLOSURE TIGHT AND CONTAINER UPRIGHT TO PREVENT LEAKAGE.

DO NOT GET IN EYES.
AVOID SKIN CONTACT.
DO NOT HANDLE UNTIL THE MANUFACTURERS SAFETY PRECAUTIONS HAVE BEEN READ
AND UNDERSTOOD.

SECTION 313 SUPPLIER NOTIFICATION:

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE
REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND
COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (40CFR372).

S#	CHEMICAL NAME	PERCENT BY WEIGHT
47-01-0	HYDROCHLORIC ACID, CONC., ACS	5

THIS INFORMATION SHOULD BE INCLUDED IN ALL MSDS' THAT ARE COPIED AND DIS-
IBUTED FOR THIS MATERIAL.

DISCLAIMER OF LIABILITY

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"ISSUED BY VWR 01/21/93"