rev: 3/16/1989

company

THE WORLD'S FOREMOST MANUFACTURER OF RESEARCH
BIOCHEMICALS AND DIAGNOSTIC REAGENTS

ATTN: SAFETY DIRECTOR CHARLIE FONG UNIV OF NEVADA SYSTEM SAFETY & LUSS CONTROL CLARK ADM BLDG RM 107 RENO NV 89557

PHONE TOLL FREE CONTINENTAL U.S.A (EXCL MO.) 1-800-325-8070 OR PHONE COLLECT

1-314-771-5765

FROM ANYWHERE IN THE WORLD MAILING ADDRESS: P.O. BOX 14508, ST. LOUIS, MO. 63178, U.S.A

CABLE ADDRESS: SIGMACHEM TWX. 910-761-0593

EMERGENCY PHONE 1-314-771-5765

DATE: 03/16/89

TXCYAC 23,281,82

29ZWAE -,207,68 TABIA2 3,231,33

85DCAI 2,73,70 AMRL** TR-74-78,74 JCTOOH 3,61,76 COREAF 256,1043,63

BIZEA2 134,437,23

85INA8 5.313.86

SHEET

CUST#: 2-055-60420 PO#: 835777

5506

MATERIAL SAFETY

PAGE

----- IDENTIFICATION

STOCK #: PRODUCT #: H8626

7647-01-0

NAME: HYDROCHLORIC ACID SOLUTION 2.0N

DATA

SYNONYMS

CAS #:

ACIDE CHLORHYDRIQUE (FRENCH) * ACIDO CLORIDRICO (ITALIAN) *
CHLOURHATERSTOF (DUTCH) * CHLOROHYDRIC ACID * CHLOROWODOR (POLISH) *
CHLORWASSERSTOFF (GERMAN) * HYDROCHLORIC ACID, ANHYDROUS (DOT) *
HYDROCHLORIC ACID (DOT) * HYDROCHLORIC ACID, SOLUTION (DOT) *
HYDROCHLORIC ACID, SOLUTION, INHIBITED (DOT) * HYDROCHLORIDE *
HYDROGEN CHLORIDE (ACGIH,DOT) * HYDROGEN CHLORIDE, ANHYDROUS (DOT) *
HYDROGEN CHLORIDE, REFRIGERATED LIQUID (DOT) * MURIATIC ACID *
MURIATIC ACID (DOT) * SPIRITS OF SALT * SPIRITS OF SALT (DOT) * UN

----- TOXICITY HAZARDS -----

RTECS NO: MW4025000 HYDROCHLORIC ACID

IRRITATION DATA
EYE-RBT 5 MG/30S RINSE MLD

TOXICITY DATA

IHL-HMN LCLO:1300 PPM/30M

IHL-HMN LCLO:3000 PPM/5M

UNR-MAN LDLD:81 MG/KG
IHL-RAT LC50:3124 PPM/IH
IHL-MUS LC50:1108 PPM/IH

IPR-MUS LD50:1449 MG/KG

ORL-RAT LD50:900 MG/KG

REVIEWS. STANDARDS. AND REGULATIONS ACGIH TLV-CL 5 PPM

OSHA STANDARD-AIR: CL 5 PPM

OSHA STANDARD-AIR:CL 5 PPM
FEREAC 39,23540,74
EPA GENETOX PROGRAM 1988. NEGATIVE: CELL TRANSFORM.-SA7/SHE
EPA TSCA CHEMICAL INVENTORY. 1986
EPA TSCA SECTION 8(E) STATUS REPORT 8EHQ-0578-0146
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 1989
NIOSH ANALYTICAL METHODS: SEE ACIDS, INDRGANIC. 7903
MEETS CRITERIA FOR PROPOSED OSHA MEDICAL RECORDS RULE
FEREAC 47.30420.82
FET ORSAN DATA

TARGET ORGAN DATA

SENSE URGANS AND SPECIAL SENSES (OTHER EYE EFFECTS) LUNGS, THORAX OR RESPIRATION (RESPIRATORY STIMULATION) SKIN AND APPENDAGES (AFTER SYSTEMIC EXPOSURE: DERMATITIS, OTHER)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RIECS FOR COMPLETE INFORMATION.

CONTINUED ON NEXT PAGE

BRANCH OFFICES AT: SIGMA CHEMICAL CO. LTD. Fancy Road, Poole, Dorset BH17 7NH England.

SIGMA CHEMIE GmbH Grünwalder Weg 30 D-8024 Deisenhofen West Germany.

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MATERIAL SAFE T DATA SHEET

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STOCK #:

251-2

CUST#: 2-055-60420 PO#: 835777

PRODUCT #: H8626

NAME: HYDROCHLORIC ACID SOLUTION 2.ON

----- HEALTH HAZARD DATA -----

ACUTE EFFECTS MAY BE FATAL IF INHALED. SWALLOWED. OR ABSORBED THROUGH SKIN. CAUSES BURNS.

MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
INHALATION MAY BE FATAL AS A RESULT OF SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION. COUGHING.
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND

VOMITING. EFFECTS CHRONIC

PROLONGED EXPOSURE CAN CAUSE: CHEMICAL PNEUMONITIS. PULMONARY EDEMA. EFFECTS MAY BE DELAYED.

FIRST AID

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.

CALL A PHYSICIAN.

IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER
FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND
SHOES AND CALL A PHYSICIAN.

IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT,
CALL A PHYSICIAN.

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER
FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING
THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

----- PHYSICAL DATA -----

APPEARANCE AND DOOR LIQUID

----- FIRE AND EXPLOSION HAZARD DATA -----

EXTINGUISHING MEDIA
CARBON DIOXIDE. DRY CHEMICAL POWDER. ALCOHOL OR POLYMER FOAM.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

----- REACTIVITY DATA ------

STABILITY STABLE. INCOMPATIBILITIES STRONG BASES HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

----- SPILL OR LEAK PROCEDURES -----

STEPS TO BE S TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED WEAR SELF-CONTAINED BREATHING APPARATUS. RUBBER BOOTS AND HEAVY

CONTINUED ON NEXT PAGE

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----- SPILL OR LEAK PROCEDURES -----

RUBBER GLOVES.

MIX WITH SOLID SODIUM BICARBONATE.
SWEEP UP. PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

WASTE DISPOSAL METHOD

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL. STATE. AND LOCAL LAWS.

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

NIOSH/MSHA-APPROVED RESPIRATOR.
USE ONLY IN A CHEMICAL FUME HOOD.
COMPATIBLE CHEMICAL RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

CAUSES BURNS.
IN CASE OF CONTACT WITH EYES. RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

DO NOT BREATHE VAPOR. POISON

REGULATORY INFORMATION

8.0% HYDROCHLORIC ACID 7647-01-0

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

----- ADDITIONAL PRECAUTIONS AND COMMENTS -----

HYDROCHLORIC ACID SOLUTION

ICAO SHIPPING NAME: HYDROCHLURIC ACID MIXTURES NAME: HYDROCHLORIC ACID MIXTURES

UN NO: UN1789

CFR NO: NA1789

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

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