

SIGMA CHEMICAL CO -- HYDROCHLORIC ACID SOLUTION -- 6550-01-359-3449

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Product Identification
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Product ID:HYDROCHLORIC ACID SOLUTION

MSDS Date:11/01/1995

FSC:6550

NIIN:01-359-3449

Status Code:A

MSDS Number: CKFPB

=== Responsible Party ===

Company Name:SIGMA CHEMICAL CO

Box:14508

City:ST LOUIS

State:MO

ZIP:63178

Country:US

Info Phone Num:314-771-5765

Emergency Phone Num:314-771-5765

Resp. P

arty Other MSDS Num.:HT20-2

CAGE:21076

=== Contractor Identification ===

Company Name:SIGMA CHEMICAL COMPANY

Address:3050 SPRUCE ST

Box:14508

City:ST LOUIS

State:MO

ZIP:63178

Country:US

Phone:314-771-5765

CAGE:21076

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Composition/Information on Ingredients
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Ingred Name:HYDROCHLORIC ACID SOLUTION

CAS:7647-01-0

RTECS #:MW4025000

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

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Hazards Identification
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:CORROSIVE. CAUSES BURNS. ACUTE
EFFECTS: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH
SKIN. 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.
Effects of Overexposure:SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING
SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH,
HEADACHE, NAUSEA AND VOMITING.

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First Aid Measures

First Aid:EYES: IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY
OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING OF THE
EYES BY SEPARATING THE EYELIDS WITH FINGERS. SEEK MEDICAL ADVICE.
SKIN
: IN CASE OF CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF WATER
FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND
SHOES. SEEK MEDICAL ADVICE. . INHALATION: REMOVE TO FRESH AIR. IF
NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULT,
GIVE OXYGEN. INGESTION: IF SWALLOWED, WASH OUT MOUTH WITH WATER
PROVIDED PERSON IS CONSCIOUS. WASH CONTAMINATED CLOTHING BEFORE REUSE.
DISCARD CONTAMINATED SHOES.

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Fire Fighting Measures

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Flash Point:NONE
Extinguishing Media:NON-COMBUSTIBLE. USE EXTINGUISHING MEDIA
APPROPRIATE TO SURROUNDING FIRE CONDITIONS.
Fire Fighting Procedures:WEAR NIOSH APPROVED SELF-CONTAINED BREATHING
APPARATUS AND FULL PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN
AND EYES. PREVENT CONTACT WITH SKIN AND EYES.
Unusual Fire/Explosion Hazard:USE WATER SPRAY TO COOL FIRE-EXPOSED
CONTAINERS.

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Accidental Release Measures

Spill Release Procedure

ures:EVACUATE AREA. WEAR NIOSH APPROVED
SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER
GLOVES. COVER WITH DRY-LIME, SAND, OR SODA ASH. PLACE IN COVERED
CONTAINERS USING NON-SPARKING TOOLS AND TRANSPORT OUTDOORS.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS
COMPLETE.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL DRY PLACE. KEEP
TIGHTLY CLOSED.

Other Precautions:WASH
THOROUGHLY AFTER HANDLING. AVOID PROLONGED OR
REPEATED EXPOSURE. DO NOT GET INTO EYES, ON SKIN, ON CLOTHING. DO
NOT PIPET BY MOUTH.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NIOSH APPROVED RESPIRATOR IN NONVENTILATED AREAS
AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV.

Ventilation:MECHANICAL EXHAUST REQUIRED.

Protective Gloves:IMPERVIOUS GLOVES . RUBBER GLOVES.

Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES . CHEMICAL SAFETY
GOGGLES.

Other Protective Equipment:ANSI APPROVED EMERGENCY EYEWASH AND DELUGE
SHOWER .

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING. WASH
CONTAMINATED CLOTHING BEFORE REUSE. DISCARD CONTAMINATED SHOES.

Supplemental Safety and Health

THIS MSDS IS FOR A COMPONENT OF HT20-1. WASTE DISPOSAL: CONTROLLED BY
THE RATE OF ADDITION. OBSERVE ALL FEDERAL, STATE AND LOCAL
ENVIRONMENTAL REGULATIONS.

===== Physical/Chemical Properties =====

Appearance and
Odor:LIQUID

===== Stability and Reactivity Data =====

BASES, AMINES, ALKALI METALS, COPPER, COPPER ALLOYS, ALUMINUM, CORRODES
STEEL.

Hazardous Decomposition Products:TOXIC FUMES OF HYDROGEN CHLORIDE GAS.

===== Toxicological Information =====

Toxicological Information:IRRITATION DATA: EYE-RBT: 5 MG/30S RINSE 1
LD. TOXICITY DATA: IHL-HMN LCLO: 1300 PPM/30M. IHL-HMN LCLO: 3000
PPM/5M. UNR-MAN LDLO: 81 MG/KG. IHL-RAT LC50: 3124 P

PM/1H. IHL -

MUS LC50: 1108 PPM/IH. IPR -MUS LD50: 1449 MG/KG. ORL-RAB LD50: 900 MG/KG. TARGET ORGAN DATA: SENSE ORGANS & SPECIAL SENSES (OTHER EYE EFFECTS). LUNGS, THORAX OR RESPIRATION (RESPIRATORY STIMULATION). SKIN & APPENDAGES (AFTER SYSTEMIC EXPOSURE: DERMATITIS, OTHER). ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

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Ecological Information

Ecological:DATA NOT YET AVAILABLE. OTHER INFO: ACGIH TLV. NIOSH REL TO HYDROGEN CHLORIDE-AIR: CL 5 PPM. NIOSH* DHHS #92-100, 92. NOHS 1974: HZD 38580: NIS 360; TNF 87434: NOS 156; TN3 824985. NOES 1983: HZD 3858 0: NIS 321; TNF 60309; NOS 183; TNE 1238572; TFE 388130. EPA GENETOX PROGRAM 1988, NEGATIVE: CELL TRANSFORM.-S A7/SHE. EPA TSCA SECTION 8(B) CHEMICAL INVENTORY. EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH H/SAFETY STUDIES. EPA TSCA SECTION 8(

E) RISK

NOTIFICATION, 8EHQ-0892-9246. ON EPA IRIS DATABASE. EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, APRIL 1995. NIOSH ANALYTICAL METHOD, 1994: ACIDS, INORGANIC, 7903.

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Disposal Considerations

Waste Disposal Methods:FOR SM QTY: CAUTIOUSLY ADD TO A LARGE STIRRED EXCESS OF WATER. ADJUST PH TO NEUTRAL, SEPARATE ANY INSOLUBLE SOLIDS OR LIQUIDS & PACKAGE THEM FOR HAZARDOUS WASTE DISPOSAL. FLUSH THE AQUEOUS SOLUTION DOWN THE DRAIN WITH PLENTY OF WATER. THE HYDROLYSIS & NEUTRALIZATION REACTIONS MAY GENERATE HEAT & FUMES WHICH CAN BE (SEE SUP DATA)

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MSDS Transport Information

Transport Information:CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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Regulatory Information

SARA Title III Information:U. S. INFORMATION: 3.7% HYDROCHLORIC ACID 7647-01-0. THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING

REQUIREMENTS.

Federal Regulatory Information:EUROPEAN INFORMATION: EC INDEX NO: 017-002-00-2. CORROSIVE. R 34. CAUSES BURNS. S 26. IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND SEEK MEDICAL ADVICE. S 27. TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. S 36/37/39. WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION. S 23. DO NOT BREATHE VAPORS. OEL=MAK. ACGIH TLV-CL 5 PPM. IARC CANCER REVIEW: HUMAN INADEQUATE EVIDENCE. IARC CANCER REVIEW: ANIMAL INADEQUATE EVIDENCE. IARC CANCER REVIEW: GROUP 3. EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION FEREAC 54, 7740,89. (SEE STATE REGULATIONS)

State Regulatory Information:REGULATORY INFO: MSHA STD: AIR-CL 5 PPM (7 MG/M3). DTLVS* 3,129,71. OSHA PEL (GEN INDU): CL 5 PPM (7 MG/M3). CFRGBR 29, 1910.1000,94. OSHA PEL (CONSTRUC):CL 5 PPM (7 MG/M3). CFRGBRE 29, 1926.55,94. OSHA PEL (SHIPYARD): CL 5 PPM (7 MG/M3).CFRGBR 29, 1915.1000, 93. OSHA PEL (FED CONT): CL 5 PPM (7 MG/M3). CFRGBR 41, 50-204.50, 94. OEL-AUSTRALIA: TWA 5 PPM (7 MG/M3) JAN 93. OEL-AUSTRIA: TWA 5 PPM (7 MG/M3) JAN 93. OEL-BELGIUM: STEL 5 PPM (7.7 MG/M3) JAN 93. OEL-DENMARK: STEL 5 PPM (7 MG/M3) JAN 93 . OEL-FINLAND: STEL 5 PPM (7 MG/M3; SKIN JAN 93. OEL-FRANCE: STEL 5 PPM (7.5 MG/M3) JAN 93. OEL-GERMANY: TWA 5 PPM (7 MG/M3) (OTHER INFO)

===== Other Information =====

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