

E.I. DUPONT DE NEMOURS & CO, INC. -- HYDROCHLORIC ACID SOLUTIONS -- 6810-00-823-8010

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Product Identification
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Product ID:HYDROCHLORIC ACID SOLUTIONS

MSDS Date:01/08/1997

FSC:6810

NIIN:00-823-8010

MSDS Number: CJJQF

=== Responsible Party ===

Company Name:E.I. DUPONT DE NEMOURS & CO, INC.

Address:1007 MARKET STREET

Box:1635

City:WILMINGTON

State:DE

ZIP:19899

Country:US

Info Phone Num:800-

441-7515

Emergency Phone Num:800-441-3637 - MEDICAL

Resp. Party Other MSDS Num.:DU000030

Chemtec Ind/Phone:(800)424-9300

CAGE:19898

=== Contractor Identification ===

Company Name:CHEMSOLV, INC.

Address:1140 INDUSTRY AVE. SE

Box:City:ROANOKE

State:VA

ZIP:24013

Country:US

Phone:540-427-4000

CAGE:001W1

Company Name:E.I. DUPONT DE NEMOURS & CO

Address:1007 MARKET STREET

Box:City:WILMINGTON

State:DE

ZIP:19898

Country:US

Phone:800-441-7515;800-441-9442

CAGE:18873

Company Name:E.I. DUPONT DE NEMOURS &

CO., INC.
Box:1635
CAGE:19898
Company Name:PHOENIX INDUSTRIES INC
Address:1519 CHAMBERLAYNE PARKWAY
Box:City:RICHMOND
State:VA
ZIP:23222
Country:US
Phone:804-264-5183/FAX: 264-5535
Contract Num:SP0450-00-M-SA57
CAGE:0YED2
Company Name:PHOENIX INDUSTRIES INC
Address:1519 CHAMBERLAYNE PARKWAY
Box:City:RICHMOND
State:VA
ZIP:23222
Country:US
Phone:804-264-5183/FAX: 264-5535
Contract Num:SP0450-98-M-C727
CAGE:0YED2

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Composition/Information on Ingredients
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Ingred Name:HY
DROGEN CHLORIDE (HYDROCHLORIC ACID) (SARA III)
CAS:7647-01-0
RTECS #:MW4025000
Minumum % Wt:31.5
Maxumum % Wt:37.1
OSHA PEL:C 5 PPM
ACGIH TLV:C 5 PPM; 9192
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:WATER,
CAS:7732-18-5
RTECS #:ZC0110000
Fraction by Wt: 68.5%

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Hazards Identification
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LD50 LC50 Mixture:LD50 ORAL RABBIT IS 900MG/KG
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:TARGET ORGANS: SKIN, EYES, LUNGS. THIS COMPOUND IS CORROSIVE AND CAUSES BURNS OF THE EYES AND SKIN; CAUSES NOSE AND THROAT IRRITATION. HIGH OR PROLONGED INHALATION EXPOSURE MAY CAUSE PULMONARY EDEMA (FLUID ACCUMULATION IN LUNG). INGESTION MAY CAUSE SEVERE ACID BURNS TO THE MOUTH, THROAT, ESOPHAGUS AND STOMACH. GROSS OVEREXPOSURE MAY CAUSE DEATH.

Explanation of Carcinogenicity:HYDROCHLORIC ACID IS CLASSIFIED IARC-3 (INSUFFICIENT EVIDENCE-HUMAN). TESTS IN ANIMALS DEMONSTRATE NO CARCINOGENIC ACTIVITY.

Effects of Overexposure:EYES-EYE CORROSION WITH CORNEAL OR CONJUNCTIVAL ULCERATION. INHALATION-UPPER RESPIRATORY PASSAGES WITH COUGHING AND DISCOMFORT. HIGHER INHALATION EXPOSURES MAY LEAD TO CORROSION OF MUCOSAL SURFACES WITH TEMPORARY LUNG IRRITATION WITH COUGH,DIFFICULTY IN BREATHING, SHORTNESS OF BREATH, DENTAL EROSION. INGESTION-SEVERE ACID BURNS OF MOUTH, THROAT, CHEST AND ABDOMEN; VOMITING AND DIAR

RHEA OF DARK BLOOD MAY OCCUR WITH PENETRATION OF THE ESOPHAGUS OR STOMACH.

Medical Cond Aggravated by Exposure:INDIVIDUALS WITH PREEXISTING DISEASES OF THE LUNGS MAY HAVE INCREASED SUSCEPTIBILITY TO THE TOXICITY OF EXCESSIVE EXPOSURES.

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===== First Aid Measures =====

First Aid:INHALED-IMMEDIATELY REMOVE VICTIM TO UNCONTAMINATED ATMOSPHERE. CALL A PHYSICIAN. GIVE OXYGEN AS SOON AS POSSIBLE (6 LITERS/MINUTE). IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

KEEP VICTIM WARM & AT REST. SKIN-IMMEDIATELY SHOWER & COMPLETELY REMOVE ALL CONTAMINATED CLOTHES/SHOES WHILE IN SHOWER. FLUSH IN SHOWER FOR AT LEAST 5 MINUTES. CALL FOR MEDICAL HELP.

EYES-IMMEDIATELY FLUSH WITH WATER, HOLD LIDS APART. CALL PHYSICIAN IMMEDIATELY. TRANSFER TO MEDICAL FACILITY IMMEDIATELY. INGESTED-DO NOT INDUCE VOMITING! GIVE LARGE QUANTITIES OF WATER. CALL A PHYSICIAN IMMEDIATELY & TRANSFER PROMPTLY TO MEDICAL FACILITY.

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===== Fire Fighting Measures =====

Flash Point:NONE

Extinguishing Media:WILL NOT BURN. USE MEDIA APPROPRIATE FOR SURROUNDING MATERIAL.

Fire Fighting Procedures:KEEP PERSONNEL REMOVED & UPWIND OF FIRE, COOL TANK/CONTAINER WITH WATER SPRAY. RUNOFF FROM FIRE CONTROL MAY BE A POLLUTION HAZARD. WEAR FULL PROTECTIVE CLOTHING WITH HOOD AND BREATHING AIR SUPPLY. NEUTRALIZE WITH LIME, SODA ASH, ETC TO PREVENT METAL CORROSION & FOAMATION OF HYDROGEN.

Unusual F

ire/Explosion Hazard:MAY GENERATE FLAMMABLE, POTENTIALLY
EXPLOSIVE HYDROGEN GAS ON CONTACT WITH MOST METALS. EXPLOSIVE
CONCENTRATIONS OF HYDROGEN MAY ACCUMULATE INSIDE METAL
EQUIPMENT.HYDROCHLORIC ACID FUMES MAY BE RELEAS ED FROM HEATING
UNDER FIRE CONDITIONS. FOLLOW APPROPRIATE NATIONAL FIRE PROTECTION
ASSOCIATION (NFPA) CODES.

===== Accidental Release Measures =====

Spill Release Procedures:USE APPROPRIATE PERSONAL PROTECTIVE GEAR
DURING CL
EAN-UP. EVACUATE PERSONNEL. KEEP UPWIND OF LEAK. EVACUATE
UNTIL GAS HAS DISPERSED. WEAR SELF-CONTAINED BREATHING APPARATUS
(SCBA) AND FULL PROTECTIVE GEAR. DIKE SPILL. PREVENT FROM
ENTERINGSEWERS, WATERWAYS OR LOW AREAS. FLUSH AWAY TRACES WITH
WATER. NEUTRALIZE SPILL WITH LIME, SODA ASH. DO NOT FLUSH TO SEWER
BEFORE NEUTRALIZING.

Neutralizing Agent:SODA ASH, LIME.

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

Handling and Storage Precautions:STORE IN C
OOL PLACE. KEEP CONTAINER
CLOSED. KEEP AWAY FROM HEAT, SPARKS AND FLAMES. DO NOT STORE OR MIX
WITH CYANIDES, SULFIDES OR FORMALDEHYDE. PROTECT CONTAINER FROM
DAMAGE.

Other Precautions:DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. AVOID
BREATHING VAPORS OR MIST. WASH THOROUGHLY AFTER HANDLING. NIOSH
HAS ESTABLISHED AN IDLH FOR HYDROCHLORIC ACID OF 50 PPM. THIS
CONCENTRATION IS ONLY I NTENDED FOR USE IN RESPIRATOR SELECTIONFOR
THE HEALTHY WORKER POPULATION.

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= Exposure Controls/Personal Protection =====

Respiratory Protection:IF EXPOSURE LIMITS MAY BE EXCEEDED, WEAR
NIOSH/MSHA APPROVED RESPIRATOR PROTECTION.

Ventilation:USE SUFFICIENT VENTILATION TO KEEP EMPLOYEE EXPOSURE BELOW
RECOMMENDED LIMITS.

Protective Gloves:NEOPRENE RUBBER GAUNTLET.

Eye Protection:CHEM SPLASH GOGGLES, FACE SHIELD.

Other Protective Equipment:WEAR AS APPROPRIATE: NEOPRENE BOOTS PLUS
NEOPRENE OR VINYL JACKET; FULL ACID SUIT OF NEOPRENE, VINYL OR
OTH

ER ACID-RESISTENT MATERIAL INCLUDES HOOD, GLOVES, BOOTS & SCBA.
EYE WASH & FULL SHOWER.

Work Hygienic Practices:WASH HANDS.SEPERATE WORK CLOTHES FROM STREET
CLOTHES.LAUNDER WORK CLOTHES BEFORE REUSE.KEEP FOOD OUT OF THE WORK
AREA.

Supplemental Safety and Health

SPILL/EMERGENCY NOTE: PROTECTIVE CLOTHING & EQUIPMENT SHOULD NOT BE
WORN OUTSIDE OF THE OPERATING AREA. WASH PROTECTIVE CLOTHING AND
EQUIPMENT UNDER A SAFETY SHOWER AFTER EXPOSURE OR SUSPECTED EXPOSUR
E TO HYDROCHL
ORIC ACID.

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

HCC:C1

Boiling Pt:=84.C, 183.2F

Melt/Freeze Pt:=-52.5C, -62.5F

Vapor Pres:36MM HG@25C

Vapor Density:1.27

Spec Gravity:1.16-1.84

pH: 1 (BUTYL ACETATE = 1)

Solubility in Water:100 WT %

Appearance and Odor:COLORLESS TO LIGHT YELLOW LIQUID WITH A PUNGENT,
ACRID ODOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

MOST

METALS, OXIDIZING AGENTS, CYANIDES, SULFIDES, FORMALDEHYDE.

Stability Condition to Avoid:HEAT CAN CAUSE EVOLUTION OF GASEOUS
HYDROGEN CHLORIDE.

Hazardous Decomposition Products:HEAT CAN CAUSE EVOLUTION OF GASEOUS
HYDROGEN CHLORIDE.

Conditions to Avoid Polymerization:POLYMERIZATION WILL NOT OCCUR.

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

Toxicological Information:ANIMAL DATA: INHALATION - 1 HR- LC50 (RATS):
2,810 PPM. ORAL LD50 (RABBITS): 900 MG/KG. THE CO

MPOUND IS

CORROSIVE TO EYES & SKIN. TOXIC EFFECTS INCLUDE: RESPIRATORY IRRITATION, CORNEAL OPACITY & CORROSION OF MUCOSAL SURFACES. EFFECTS FROM PROLONGED & REPEATED EXPOSURE: CHANGES TO NASAL CAVITY WITH NECROSIS, REDUCED WEIGHT GAIN, DECREASED LIVER WEIGHT. EFFECTS FROM INGESTION: GASTRIC MUCOSAL DAMAGE, DECREASED WEIGHT GAIN, MORTALITIES, NON-SPECIFIC CHANGE, DECREASE IN RELATIVE & ABSOLUTE SPLEEN. TESTS HAVE NOT BEEN PERFORMED FOR MUTAGENIC, DEVELOPMENTAL OR REPRODUCTIVE EFFECTS.

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Ecological Information
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Ecological: ECOTOXICOLOGICAL DATA: AQUATIC TOXICITY: 96 HOUR LC50 (MOSQUITO FISH): 282 MG/L. SLIGHTLY TOXIC.

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Disposal Considerations
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Waste Disposal Methods: THIS MATERIAL MAY BE A RCRA HAZARDOUS WASTE. TREATMENT, STORAGE, TRANSPORTATION AND DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. DO NOT FLUSH TO SURFACE WATER OR SANITARY SEWER SYSTEMS. IF APPROVED, RECOVER OR DRAIN NEUTRALIZED WASHING TO A WASTE TREATMENT PLANT OR TRANSFER TO LICENSED DISPOSAL CONTRACTOR.

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MSDS Transport Information
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Transport Information: DOT/IMO: PROPER SHIPPING NAME: HYDROCHLORIC ACID, HAZARD CLASS: 8; UN NO.: 1789; DOT/IMO LABEL: CORROSIVE; PACKING GROUP: II.

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Regulatory Information
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**SARA Title III Information: TITLE I
II SECTIONS 311/312: ACUTE-YES;
CHRONIC-YES; FIRE-NO; REACTIVITY-NO; PRESSURE-NO. SARA EXTREMELY HAZARDOUS SUBSTANCE-ONLY HYDROGEN CHLORIDE GAS; SARA TOXIC CHEMICAL-YES.**

Federal Regulatory Information: SUPERFUND REPORTABLE DISCHARGE-5000 LB. TSCA INVENTORY STATUS: REPORTED/INCLUDED. CERCLA HAZARDOUS SUBSTANCE-YES.

State Regulatory Information: NONE SPECIFIED BY MANUFACTURER.

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Other Information
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Disclaimer (provided with this in

formation by the compiling agencies):

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