PHOENIX INDUSTRIES INC -- HYDROCHLORIC ACID,30-40% -- 6810-01-145-8100

========== Product Identification ==========

Product ID:HYDROCHLORIC ACID,30-40%
MSDS Date:05/31/2000
FSC:6810
NIIN:01-145-8100
Status Code:A
MSDS Number: CKXZG
=== Responsible Party ===
Company Name:PHOENIX INDUSTRIES INC
Address:1519 CHAMBERLAYNE PARKWAY
City:RICHMOND
State:VA
ZIP:23222
Country:US
Info Phone Num:804-264-5183
Emergency
Phone Num:804-264-5183
Chemtrec Ind/Phone:(800)424-9300
CAGE:0YED2
=== Contractor Identification ===
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:SP0450-01M-D591
CAGE:0YED2

========== Composition/Information on Ingredients ==========

Ingred Name:HYDROGEN CHLORIDE
CAS:7647-01-0
RTECS #:MW4025000
Minumum % Wt:30.
Maxumum % Wt:40.
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

Ingred Name:WATER
CAS:7732-18-5
RTECS #:ZC0110000
Minumum % Wt:60.
Maxumum % Wt:67.

========== Hazards Identification ==========

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO
Health Hazards Acute and Chronic:INHALATION: CORROSIVE. INHALATION OF VAPORS CAUSE INFLAMMATION OF NOSE, THROAT, ESOPHAGUS,UPPER RESPIRATORY TRACT, IN SEVERE CASES, PUL
MONARY EDEMA, CIRCULATORY
FAILURE, & DEATH. INGESTION: CORROSIVE. SWALLOWING HYDROCHLORIC ACID CAUSE IMMEDIATE PAIN & BURNS OF THROAT, ESOPHAGUS & GASTROINTESTINAL TRACT. SWALLOWING MAY BE FATAL. SKIN: CORROSIVE. CONCENTRATED SOLUTIONS CAUSE DEEP ULCERS & DISCOLOR SKIN. EYE: CORROSIVE. VAPORS ARE IRRITATING & CAUSE DAMAGE TO EYES. CONTACT MAY CAUSE SEVERE BURNS & PERMANENT EYE DAMAGE. CHRONIC: LONG-TERM EXPOSURE TO CONCENTRATED VAPORS MAY CAUSE EROSION OF TEET H.
E
xplanation of Carcinogenicity:INGREDIENT: IARC CATEGORY; (3), HYDROGEN CHLORIDE (7647-01-0).
Effects of Overexposure:INHALATION: INHALATION OF VAPORS CAUSE COUGHING, CHOKING. INGESTION:CAUSE NAUSEA, VOMITING, AND DIARRHEA. SKIN: CAN CAUSE REDNESS, PAIN, AND SEVERE SKIN BURNS.
Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE DISEASE MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE. LONG-TERM EXPOSURE TO CONCENTRATED VAPORS MAY SEL
DOM CAUSE EROSION OF TEETH.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULT, OXYGEN. GET MEDICAL ATTENTION IMMEDIATELY. INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE QUANTI TIES OF WATER OR MILK IF AVAILABLE. NEVER GIVE ANYTHING BY MOUTH TO UNCONSCIOUS PERSON. GET MEDICAL ATTENTION. SKIN: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR 15 M

INUTES,
WHILE REMOVING CONTAMI NATED CLOTHING AND SHOES. WASH CLOTHING. CLEAN SHOES. GET MEDICAL ATTENTION IMMEDIATELY. EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES, LIFTING LOWER AND EYELIDS OCCASIONALLY. GET M EDICAL ATTENTION IMMEDIATELY.

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

Extinguishing Media:IF INVOLVED IN A FIRE, USE WATER SPRAY. NEUTRALIZE WITH SODA ASH OR SLAKED LIME. FIRE: EXTREME HEAT OR CONTACT WITH METALS
CAN RELEASE FLAMMABLE HYDROGEN GAS.
Fire Fighting Procedures:IN EVENT OF FIRE: WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER PRESSURE MODE.
Unusual Fire/Explosion Hazard:STRUCTURAL FIREFIGHTERS PROTECTIVE CLOTHING IS INEFFECTIVE FOR FIRES INVOLVING HYDROCHLORIC ACID. STAY AWAY FROM ENDS OF TANKS. COOL TANKS WITH WATER SPRAY UNTIL AFTER FIRE OUT.

========== Accident
al Release Measures ==========

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL.WEAR PERSONAL PROTECTIVE EQUIPMENT. ISOLATE HAZARD AREA. KEEP UNNECESSARY AND UNPROTECTED PERSONNEL FROM ENTERING. CONTAIN AND RECOVER LIQUID WHEN POSSIBLE. NEUTRALIZE WITH ALKALINE MATERIAL (SODA ASH, LIME), ABSORB WITH INERT; (VERMICULITE, DRY SAND, EARTH), PLACE IN CHEMICAL WASTE CONTAINER. DO NOT USE COMBUSTIBLE MATERIALS SUCH AS SAW DUST. DO NOT FLUSH TO SEWER!
Neutrali
zing Agent:NEUTRALIZE WITH ALKALINE MATERIAL(SODA ASH, LIME),THEN ABSORB WITH INERT MATERIAL: VERMICULITE, DRY SAND, EARTH.

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

Handling and Storage Precautions:STORE IN A COOL, DRY, VENTILATED STORAGE AREA WITH ACID RESISTANT FLOORS AND GOOD VENTILATION. PROTECT FROM PHYSICAL DAMAGE. KEEP OUT OF DIRECT SUNLIGHT AND AWAY FROM HEAT, WATER, INCOMPATIBLE MATERIA LS. DO NOT WASH OUT CONTAINER AND USE IT FOR OTH

ER PURPOSES.
Other Precautions:WHEN DILUTING, THE ACID SHOULD ALWAYS BE ADDED SLOWLY TO WATER AND IN SMALL AMOUNTS. NEVER USE HOT WATER AND NEVER ADD WATER TO THE ACID. WATER ADDED TO ACID CAN CAUSE UNCONTROLLED BOILING AND SPLASHI NG. WHEN OPENING METAL CONTAINERS, USE NON-SPARKING TOOLS BECAUSE OF POSSIBILITY OF HYDROGEN GAS BEI NG PRESENT.

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

Respiratory Protection:IF EXPOSURE LIMIT IS EXCEEDED, FULL FACEPI
ECE
RESPIRATOR WITH ACID GAS CARTRIDGE CAN BE WORN UP TO 50 TIMES EXPOSURE LIMIT OR MAXIMUM USE PERMITTED BY APPROPRIATE REGULATORY AGENCY OR RESPIRATOR SUPPL IER, WHICHEVER IS LESSER. EMERGENCIES OR S WHERE EXPOSURE LEVELS NOT KNOWN, USE POSITIVE-PRESSURE, AIR SUPPLIED RESPIRATOR.
Ventilation:A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURE BELOW THE AIRBORNE EXPOSURE LIMITS.
Protective Gloves:USE RUBBER OR NEOPRENE GLOVES AND ADDITIONAL PROTECTION I.
Eye Protection:USE CHEMICAL SAFETY GOGGLES AND/OR FULL FACE SHIELD WHERE SPLASHING POSSIBLE.
Other Protective Equipment:USE RUBBER OR NEOPRENE GLOVES AND ADDITIONAL PROTECTION INCLUDING IMPERVIOUS BOOTS, APRON, COVERALLS, AS NEEDED IN AREAS OF UNUSUAL EXPOSURE TO PREVENT SKIN CONTACT. NC
Work Hygienic Practices:WARNING: AIR PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN DEFICIENT ATMOSPHERES. HAVE EYE WASH FOUNTAIN & QUICK DRENCH FACILITIES IN WORK A
REA.
Supplemental Safety and Health
LOCAL EXHAUST VENTILATION IS GENERALLY PREFERRED AS IT CAN CONTROL THE EMISSIONS OF THE CONTAMINANT AT ITS SOURCE, PREVENTING DISPERSION OF IT INTO THE GENERAL WORK AREA. PLEASE REFER TO THE ACGIH DOC UMENT, "INDUSTRIAL MANUAL OF RECOMMENDED PRACTICES," MOST RECENT EDITION, FOR DETAILS.

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

HCC:C1
Boiling Pt:=52.8C, 127.F
B.P. Text:AZEOTROPE(20.2%)BOIL22
Melt/Freeze Pt:=-73.7C,

-101.F
Vapor Pres:190@25C(77F)
Vapor Density:1.15-1.19
pH:0.1(1.0 N),
Solubility in Water:INFINITE IN WATER
Appearance and Odor:COLORLESS, FUMING LIQUID. ODOR: PUNGENT ODOR OF HYDROGEN CHLORIDE.

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

Stability Indicator/Materials to Avoid:YES
STRONG MINERAL ACID, CONCENTRATED HYDROCHLORIC ACID INCOMPATIBLE AND HIGHLY REACTIVE WITH STRONG BASES, METALS, METAL OXIDES, HYDROXIDES, AMINES, AND OTHER ALKALINE MATERIALS. INCO
MPATIBLE WITH
MATERIALS; CYANIDES, SULFIDES
Stability Condition to Avoid:STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE. CONTAINERS MAY BURST WHEN HEATED. HEAT, DIRECT SUNLIGHT.
Hazardous Decomposition Products:DECOMPOSITION EMITS TOXIC HYDROGEN CHLORIDE FUMES, REACT WITH WATER OR STEAM TO PRODUCE HEAT, TOXIC, CORROSIVE FUMES. THERMAL OXIDATIVE DECOMP PRODUCES TOXIC CHLORINE FUMES AND EXPLOSIVE HYDROGEN GAS.
Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Toxicological Information:INHALATION RAT LC50: 3124 PPM/1H; ORAL RABBIT LD50: 900 MG/KG (HCL CONCENTRATED); INVESTIGATED AS TUMORIGEN, MUTAGEN, REPRODUCTIVE EFFECTOR.

========== Ecological Information ==========

Ecological:ENVIRONMENTAL FATE: WHEN RELEASED TO SOIL, MATERIAL IS NOT EXPECTED TO BIODEGRADE. WHEN RELEASED TO SOIL, MAY LEACH INTO GROUNDWATER. ENVIRONMENTAL TOXICITY: MATERIAL IS EXPE
CTED TO BE
TOXIC TO AQUATI C LIFE.

========== Disposal Considerations ==========

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY/RECYCLING, SHOULD BE HANDLED AS HAZARDOUS, SENT TO RCRA APPROVED WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF PRODUCT MAY CHANGE WASTE MANAGEMENT OPTIONS. STATE/ LOCAL REGULATIONS DIFFER FROM FEDERAL REGULATIONS. DISPOSE OF CONTAINER/UNUSED CONTENTS IN AC CORDANCE WITH FEDERAL, STATE, LOCAL REQUIREMEN

TS.

========== MSDS Transport Information ==========

Transport Information:DOMESTIC (LAND, DOT): PROPER SHIPPING NAME: HYDROCHLORIC ACID. HAZARD CLASS: 8. UN/NA: UN1789. PACKING GROUP: II. AIR (ICAO): PROPER SHIPPING NAME: HYDROCHLORIC ACID. HAZARD CLASS: 8. UN: UN1789. PAC KING GROUP: II.

========== Regulatory Information ==========

SARA Title III Information:SARA 302: TPQ = 500 LB (HYDROGEN CHLORIDE ANHYDROUS), EHS RQ = 5000 LB

Federal Regulatory Information:CERCLA RQ = 5000 LB

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

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