

PHOENIX INDUSTRIES INC -- HYDROCHLORIC ACID, 30-40% -- 6810-00-753-4786

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

Product ID:HYDROCHLORIC ACID, 30-40%  
MSDS Date:05/31/2000  
FSC:6810  
NIIN:00-753-4786  
Status Code:A  
MSDS Number: CKVSW  
=== 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  
Emergenc  
y 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:SP0450-01-M-D008  
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 =====

LD50 LC50 Mixture:ORAL RABBIT LD50= 900 MG/KG (CONC. HCL)  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO  
Health Hazards Acute and Chronic:LIQUID AND VAPORS ARE CORROSIVE TO EYES, SKIN, RESPIRATORY & DIGESTIVE TRACT! SWALLOWING MAY BE FATAL.  
CONCENTRATED SOLUTIONS CAUSE DEEP ULCERS & DISCOLOR SKIN. LIQUID CONTACT TO EYES MAY CAUSE SEVERE BURNS & PERMANENT EYE DAMAGE. CHRONIC: LONG TERM EXPOSURE TO CONCENTRATED VAPORS MAY CAUSE ERROSION OF TEETH. LONG TERM EXPOSURE SELDOM OCCURS DUE TO THE CORROSIVE PROPERTIES OF THE ACID.  
Explanation of Carcinogenicity:NTP AND IARC: NOT A CARCINOGEN.  
Effects of Overexposure:INHALATION: INHALATION OF VAPORS CAN CAUSE COUGHING, CHOKING, INFLAMMATION OF THE NOSE, THROAT & UPPER RESPIRATORY TRACT & IN SEVERE CASES, PULMONARY EDEMA, CIRCULATORY FAILURE, & DEATH. INGESTION: SWALLOWING HYDROCHLORIC ACID CAN CAUSE IMMEDIATE PAIN & BURNS OF THE THROAT, ESOPHAGUS & GASTROINTESTINAL TRACT. MAY CAUSE NAUSEA, VOMITING & DIARRHEA. SWALLOWING MAY BE FATAL. SKIN: CAN CAUSE REDNESS, PAIN & SEVERE SKIN BURNS. CONCENTRATED SOLUTIONS CAUSE DEEP ULCERS & DISCOLOR SKIN. EYE VAPORS ARE IRRITATING & MAY CAUSE DAMAGE TO THE EYES. CONTACT MAY CAUSE SEVERE BURNS & PERMANENT EYE DAMAGE.  
Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE DISEASE MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL HELP. INGESTION: DO NOT INDUCE VOMITING! GIVE LARGE QUANTITIES OF WATER

R OR MILK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL HELP. SKIN: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINS WHILE REMOVING CONTAMINATED CLOTHING & SHOES. WASH CLOTHING & SHOES BEFORE REUSE. GET MEDICAL HELP. EYE: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINS., LIFTING EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION.

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

Extinguishing Media: IF INVOLVED IN A FIRE, USE WATER SPRAY. NEUTRALIZE WITH SODA ASH OR SLAKED LIME.

Fire Fighting Procedures: WEAR FULL PROTECTIVE CLOTHING & NIOSH-APPROVED SCBA WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER PRESSURE MODE. STRUCTURAL FIREFIGHTER'S PROTECTIVE CLOTHING IS INEFFECTIVE FOR FIRE INVOLVING HYDROCHLORIC ACID. STAY AWAY FROM ENDS OF TANKS. COOL TANKS WITH WATER SPRAY UNTIL AFTER FIRE IS OUT.

Unusual Fire/Explosion Hazard: EXTREME HEAT OR CONTACT WITH METALS CAN RELEASE FLAMMABLE HYDROGEN GAS.

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

Spill Release Procedures: VENTILATE AREA, WEAR PERSONAL PROTECTIVE EQUIPMENT. ISOLATE HAZARD AREA. KEEP UNPROTECTED PERSONNEL FROM ENTERING. CONTAIN & RECOVER LIQUID WHEN POSSIBLE THEN ABSORB WITH AN INERT MATERIAL (E.G., VERMICULITE, DRY SAND, EARTH), AND PLACE IN A CHEMICAL WASTE CONTAINER. DO NOT FLUSH TO SEWER! US REGULATIONS (CERCLA) REQUIRE REPORTING SPILLS & RELEASES IN EXCESS OF RQ. US COAST GUARD # 800-424-8802.

Neutralizing Agent: NEUTRALIZE WITH ALKALINE MATERIAL (SODA ASH, LIME).

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

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

Other Pre

cautions:WHEN DILUTING, THE ACID SHOULD ALWAYS BE ADDED SLOWLY TO WATER & IN SMALL AMOUNTS. NEVER USE HOT WATER & NEVER ADD WATER TO THE ACID. WATER ADDED TO ACID CAN CAUSE UNCONTROLLED BOILING & SPLASHING. WHEN OPENING METAL CONTAINERS, USE NON-SPARKING TOOLS BECAUSE OF POSSIBILITY OF HYDROGEN GAS BEING PRESENT.

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

Respiratory Protection:PERSONAL RESPIRATORS (NIOSH APPROVED): IF THE EXPOSURE LIMIT IS EXCEEDED, A FULL FACEPIECE RESPIRATOR WITH AN ACID GAS CARTRIDGE CAN BE WORN UP TO 50 TIMES THE EXPOSURE LIMIT OR THE MAXIMUM USE PERMITTED BY THE APPROPRIATE REGULATORY AGENCY OR RESPIRATOR SUPPLIER, WHICHEVER IS LESSER. IN EMERGENCIES, USE A POSITIVE PRESSURE AIR-SUPPLIED RESPIRATOR OR SCBA.

Ventilation:A SYSTEM OF LOCAL &/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURE BELOW THE AIRBORNE EXPOSURE LIMITS. LOCAL EXHAUST VENTILATION PREFERRED.

Protective Gloves:USE RUBBER OR NEOPRENE GLOVES.

Eye Protection:CHEMICAL SAFETY GOGGLES AND/OR A FULL FACE SHIELD WHERE SPLASHING IS POSSIBLE

Other Protective Equipment:USE IMPERVIOUS BOOTS, APRON, COVERALLS, AS NEEDED IN AREAS OF UNUSUAL EXPOSURE TO PREVENT SKIN CONTACT. HAVE EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA.

Work Hygienic Practices:AVOID CONTACT AND BREATHING VAPORS.

Supplemental Safety and Health

WARNING! AIR PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES.

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

HCC:C1

Boiling Pt:=52.8C, 127.F

B.P. Text:AZEOTROPE BOILS @228F

Melt/Freeze Pt:=-74.C, -101.2F

Vapor Pres:190@25C(77F)

pH:0.1(1.0N)

Solubility in Water:INFINITE IN WATER

Appearance and Odor:COLORLESS, FUMING LIQUID; PUNGENT ODOR OF HYDROGEN CHLORIDE.

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

Stability Indicator/Materials to Avoid:YES

A STRONG MINERAL ACID, CONCENTRATED HYDROCHLORIC

ACID IS INCOMPATIBLE  
WITH & HIGHLY REACTIVE WITH STRONG BASES, METALS, METAL OXIDES,  
HYDROXIDES, AMINES AND OTHER ALKALINE MATERIAL. INCOMPATIBLE WITH  
CYANIDES, SULFIDES,SULF

Stability Condition to Avoid:HEAT, DIRECT SUNLIGHT. STABLE UNDER  
ORDINARY CONDITIONS OF USE AND STORAGE. CONTAINERS MAY BURST WHEN  
HEATED.

Hazardous Decomposition Products:WHEN HEATED TO DECOMPOSITION, EMITS  
TOXIC HYDROGEN CHLORIDE FUMES. THERMAL OXIDATIVE DECOMPOSITON  
PRODUCES TOXIC CHLORINE FU  
MES & EXPLOSIVE HYDROGEN GAS.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Toxicological Information:INHALATION RAT LC50= 3124 PPM/1 HR; ORAL  
RABBIT LD50= 900 MG/KG ( CONC. HCL).

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

Ecological:WHEN RELAEASE INTO THE SOIL, THIS MATERIAL IS NOT EXPECTED  
TO BIODEGRADE. WHEN RELEASED INTO SOIL, THIS MATERIAL MAY LEACH  
INTO GROUND WATER. THIS MATER  
IAL IS EXPECTED TO BE TOXIC TO AQUATIC  
LIFE.

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

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY OR  
RECYCLING SHOULD BE HANDLED AS HAZARDOUS & SENT TO A RCRA APPROVED  
WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT  
MAY CHANGE THE WASTE MANAGE MENT OPTIONS. DISPOSE OF CONTAINER &  
UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REG  
ULATIONS.

===== MSDS

Transport Information =====

Transport Information:PSN: HYDROCHLORIC ACID, 8, UN1789, II.

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

SARA Title III Information:SARA 302: HYDROCHLORIC ACID: RQ= 5000, TPQ=  
500, LISTED= YES,  
Federal Regulatory Information:LISTED ON THE TSCA INVENTORY.

Disclaimer (provided with this information by the compiling agencies):  
This information is formulated for use by elements of the Department  
of Defense. The United S

tates of America in no manner whatsoever,  
expressly or implied, warrants this information to be accurate and  
disclaims all liability for its use. Any person utilizing this  
document should seek competent professional advice to verify and  
assume responsibility for the suitability of this information to their  
particular situation.