

PHOENIX INDUSTRIES INC -- ISOPROPYL ALCOHOL -- 6810-00-753-4993

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

Product ID:ISOPROPYL ALCOHOL

MSDS Date:04/17/2000

FSC:6810

NIIN:00-753-4993

Status Code:A

MSDS Number: CKVYP

=== 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

Chemtec 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-D115

CAGE:0YED2

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

Ingred Name:ISOPROPYL ALCOHOL

CAS:67-63-0

RTECS #:NT8050000

Minumum % Wt:90.

Maxumum % Wt:100.

OSHA PEL:980 MG/M3;400 PPM

ACGIH TLV:983 MG/M3;400 PPM

ACGIH STEL:1230 MG/M3;500 PPM

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000

Minumum % Wt:0.

Maxumum % Wt:10.

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

LD50 LC50 Mixture:LD50 ORAL RAT =5045 MG/KG

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Health Hazards Acute and Chronic:INHALATION: INHALATION OF VAPORS

IRRITATES THE RESPIRATORY TRACT. INGESTION: CAN CAUSE DROWSINESS,  
UNCONSCIOUSNESS & DEATH. GASTROINTESTINAL PAIN, CRAMPS, NAUSEA,  
VOMI

TING & DIARRHEA MAY ALSO RESULT. THE SINGLE LETHAL DOSE FOR A  
HUMAN ADULT=ABOUT 250 MLS (8 OUNCES). SKIN: MAY CAUSE IRRITATION.  
MAY BE ABSORBED THROUGH THE SKIN WITH POSSIBLE SYSTEMIC EFFECTS.  
EYE: VAPORS CAUSE EYE IRRITATION. SPLAS HES CAUSE SEVERE  
IRRITATION, POSSIBLE CORNEAL BURNS & EYE DAMAGE. CHRONIC: SKIN  
EFFECTS.

Effects of Overexposure:INHALATION: IRRITATION OF RESPIRATORY TRACT.

EXPOSURE TO HIGH CONCENTRATIONS HAS A NARCOTIC EFFECT, PRODUCING  
SYMPTOMS OF DI

ZZINESS, DROWSINESS, HEADACHE, STAGGERING,

UNCONSCIOUSNESS & POSSIBLY DEATH . INGESTION: CAN CAUSE DROWSINESS,  
UNCONSCIOUSNESS & DEATH. GASTROINTESTINAL PAIN, CRAMPS, NAUSEA,  
VOMITING & DIARRHEA MAY ALSO RESULT. SKIN: MAY CAUSE IRRITATION  
WITH REDNESS & PAIN. MAY BE ABSORBED THROUGH THE SKIN WITH  
POSSIBLE SYSTEMIC EFFECTS. EYE: VAPORS CAUSE EYE IRRITATION.  
SPLASHES CAUSE SEVERE IRRITATION, POSSIBLE CORNEAL BURNS & EYE  
DAMAGE.

Medical Cond Aggravated by Exposure:PERSO

NS WITH PRE-EXISTING SKIN

DISORDERS OR IMPAIRED LIVER, KIDNEY, OR PULMONARY FUNCTION MAY BE  
MORE SUSCEPTIBLE TO THE EFFECTS OF THIS AGENT.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE  
ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

CALL A PHYSICIAN. INGESTION: GIVE LARGE AMOUNTS OF WATER TO DRINK.

NEVER GIVE AN YTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL

A

TTENTION. SKIN: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT  
LEAST 15 MINUTES. CALL A PHYSICIAN IF IRRITATION DEVELOPS. EYE:  
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15  
MINUTES, LIFTING EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION  
IMMEDIATELY.

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

Flash Point Method:CC

Flash Point:=12.C, 53.6F

Autoignition Temp:=399.C, 750.2F

Lower Limits:2.0

Upper Limits:12.7

Extinguishing Media:WATER SPRAY,  
DRY CHEMICAL, ALCOHOL FOAM, OR CARBON  
DIOXIDE.

Fire Fighting Procedures:WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED  
CONTAINERS COOL, DILUTE SPILLS TO NONFLAMMABLE MIXTURES, PROTECT  
PERSONNEL ATTEMPTING TO STOP LEAK & DISPERSE VAPORS.IN THE EVENT OF  
A FIRE, WEAR FULL PROTECTIVE CLOTHING & NIOSH-APPROVED SCBA W/  
FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE  
PRESSURE MODE.

Unusual Fire/Explosion Hazard:ABOVE FLASH POINT, VAPOR-AIR MIXTURES ARE  
EXPLO  
SIVE WITHIN FLAMMABLE LIMITS NOTED. CONTACT WITH STRONG  
OXIDIZERS MAY CAUSE FIRE OR EXPLOSION. VAPORS CAN FLOW ALONG  
SURFACE TO DISTANT IGNITION SOURCES AND FLASH BACK. SENSITIVE TO  
STATIC DISCHARGE.

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

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL. REMOVE ALL  
SOURCES OF IGNITION. WEAR APPROPRIATE PERSONAL PROTECTIVE  
EQUIPMENT. ISOLATE HAZARD AREA. CONTAIN & RECOVER LIQUID WHEN  
POSSIBLE. USE NO

N-SPARKING TOOLS & EQUIPMENT. COLLECT LIQUID IN AN  
APPROPRIATE CONTAINER OR ABSORB WITH AN INERT MATERIAL (E.G.,  
VERMICULITE, DRY SAND, EARTH), AND PLACE IN A CHEMICAL WASTE  
CONTAINER.

Neutralizing Agent:USE WATER SPRAY TO DISPERSE THE VAPORS AND TO FLUSH  
SPILLS AWAY FROM EXPOSURES.

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

Handling and Storage Precautions:PROTECT AGAINST PHYSICAL DAMAGE. STORE  
IN A COOL, DRY WELL-VENTILATED LOCATION, AWAY FROM AN

## Y AREA WHERE

THE FIRE HAZARD MAY BE ACUTE. OUTSIDE OR DETACHED STORAGE IS PREFERRED. SEPARATE FROM INCOMPATIBLES. CONTAINERS SHOULD BE BONDED & GROUNDED FOR TRANSFERS TO AVOID STATIC SPARKS.

Other Precautions: USE NON-SPARKING TOOLS, INCLUDING EXPOSITION PROOF VENTILATION. CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (VAPORS, LIQUID); OBSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE PRODUCT.

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

Respiratory Protection: PERSONAL RESPIRATORS (NIOSH APPROVED): IF THE EXPOSURE LIMIT IS EXCEEDED, A FULL FACEPIECE RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE MAY BE WORN. FOR EMERGENCIES, USE A FULL-FACEPIECE POSITIVE-PRESSURE AIR-SUPPLIED RESPIRATOR.

Ventilation: A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES BELOW THE AIRBORN EXPOSURE LIMITS.

Protective Gloves: WEAR IMPERVIOUS GLOVES.

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

Other Protective Equipment: WEAR IMPERVIOUS PROTECTIVE CLOTHING, INCLUDING BOOTS, LAB COAT, APRON OR COVERALLS AS APPROPRIATE TO PREVENT SKIN CONTACT. NEOPRENE & NITRILE RUBBER ARE RECOMMENDED MATERIALS. MAINTAIN EYE WASH

Supplemental Safety and Health

LOCAL EXHAUST VENTILATION IS GENERALLY PREFERRED BECAUSE IT CAN CONTROL THE EMISSIONS OF THE CONTAINMENT AT ITS SOURCE. CONSULT ACGIH MANUAL ON INDUSTRIAL VENTILATION.

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

HCC: F2

Boiling Pt: =82.C, 179.6F

Melt/Freeze Pt: =-89.C, -128.2F

Vapor Pres: 44 @25C (77F)

Vapor Density: 2.1

Spec Gravity: 0.79 @20C/4C

pH: NO INFORMATION

Evaporation Rate & Reference: 2.83 (BU AC = 1)

Solubility in Water: MISCIBLE IN WATER

Appearance and Odor: CLEAR, COLORLESS LIQUID; RUBBING ALCOHOL ODOR.

Percent Volatiles by Volume: 100

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

Stability Indica

tor/Materials to Avoid: YES

STRONG OXIDIZERS, ACETALDEHYDE, ACIDS, CHLORINE, ETHYLENE OXIDE, HYDROGEN-PALLADIUM COMBINATION, HYDROGEN PEROXIDE-SULFURIC ACID COMBINATION, POTASSIUM TERT-BUTOXIDE, HYPOCHLOROUS ACID, ISOCYANATES, NITROFORM, PHOSGENE, ALU

Stability Condition to Avoid: HEAT AND SUNLIGHT CAN CONTRIBUTE TO INSTABILITY.

Hazardous Decomposition Products: CARBON DIOXIDE AND CARBON MONOXIDE MAY FORM WHEN HEATED TO DECOMPOSITION.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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

Toxicological Information: SKIN RABBIT LD50: 12.8 GM/KG; INHALATION RAT LC50: 16,000 PPM/ 8 HR; INVESTIGATE AS A TUMORIGEN, REPRODUCTIVE EFFECTOR. NTP= NO, IARC = 3 ( NOT CLASSIFIABLE AS CARCINOGEN).

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

Ecological: WHEN RELEASED INTO THE SOIL, THIS MATERIAL IS EXPECTED TO QUICKLY EVAPORATE, BIODEGRADE TO A MODERATE EXTENT, AND MAY LEACH INTO

GROUNDWATER. WHEN RELEASED INTO WATER, THIS MATERIAL IS EXPECTED TO QUICKLY EVAPORATE AND READILY BIODEGRADE, & IS EXPECTED TO HAVE A HALF LIFE OF BETWEEN 1 TO 10 DAYS. IT DOES NOT SIGNIFICANTLY BIOACCUMULATE. WHEN RELEASED INTO AIR THIS MATERIAL IS EXPECTED TO READILY DEGRADED BY REACTION WITH PHOTOCHEMICALLY PRODUCED HYDROXYL RADICALS, AND HAS A HALF LIFE OF 1 TO 10 DAYS IN AIR. IT CAN BE REMOVED FROM ATMOSPHERE TO A MODERATE EXTENT BY WET DEPOSITION.

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

Waste Disposal Methods: WHATEVER CANNOT BE SAVED FOR RECOVERY OR RECYCLING SHOULD BE HANDLED AS HAZARDOUS WASTE & SENT TO A RCRA APPROVED INCINERATOR OR DISPOSED IN A RCRA APPROVED WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS. DISPOSAL MUST IN ACCORDANCE WITH, LOCAL, STATE AND FEDERAL REGULATIONS.

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

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Transport Information:PSN: ISOPROPANOL, 3, UN1219, II.

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

SARA Title III Information:SARA SECTION 302 RQ & TPQ: NO SARA SECTION 313 (40CFR372.65): CHEMICAL CATG=NO, LIST= YES. RCRA/CERCLA = NO. TSCA (261.33)= NO, TSCA 8(D)= NO. ENVIRONMENTAL TOXICITY: THE LC50/96 HR VALUES FO R FISH ANE OVER 100 MG/L. THIS MATERIAL IS NOT EXPECTED TO BE TOXC TO AQUATIC LIFE.

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

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