

PHOENIX INDUSTRIES INC -- TOLUENE, ACS GRADE -- 6810-00-840-6318

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Product Identification
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Product ID:TOLUENE, ACS GRADE

MSDS Date:03/10/1999

FSC:6810

NIIN:00-840-6318

Status Code:A

MSDS Number: CJHKC

=== Responsible Party ===

Company Name:PHOENIX INDUSTRIES INC

Address:11028 LEADBETTER RD UNIT 10

City:ASHLAND

State:VA

ZIP:23005

Country:US

Info Phone Num:804-264-5183

Emergency Phone Nu

m: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:SP0450-99-M-C957

CAGE:0YED2

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Composition/Information on Ingredients
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Ingred Name:TOLUENE

CAS:108-88-3

RTECS #:XS5250000

= Wt:100.

OSHA PEL:see Table Z-2

ACGIH TLV:188 MG/M3;50 PPM

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:

1000 LBS

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===== Hazards Identification =====
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LD50 LC50 Mixture:ORAL RAT LD50= 636 MG/KG

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

Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO

Health Hazards Acute and Chronic:INHALATION MAY CAUSE IRRITATION OF THE UPPER RESPIRATORY TRACT. INGESTION MAY CAUSE ABDOMINAL SPASMS AND OTHER SYMPTOMS THAT PARALLEL OVER-EXPOSURE TO INHALATION.SKIN CONTACT CAUSES IRRITATION. MAY B E ABSORBED THROUGH

SKIN. EYE

CONTACT CAUSES SEVERE EYE IRRITATION. CHRONIC: REPORTS OF CHRONIC POISONING DESCRIBE ANEMIA, BLOOD CELL COUNT & BONE MARROW APLASIA. LIVER & KIDNEY DAMAGE MAY OCCUR. REPEATED OR PROLONGED CONTACT HAS A DEFATTING ACTION, CAUSING DRYING, REDNESS, DERMATITIS. EXPOSURE TO TOLUENE MAY AFFECT THE DEVELOPING FETUS.

Explanation of Carcinogenicity:TOLUENE IS LISTED BY IARC AS A CATAGORY III.

Effects of Overexposure:INHALED-FATIGUE, CONFUSION, HEADACHE, DIZZINESS, D

ROWSINESS, PECULIAR SKIN SENSATIONS (EG PINS AND NEEDLES) OR NUMBNESS, UNCONSCIOUSNESS, POSSIBLE DEATH. INGESTED-ABDOMINAL SPASMS, CHEMICAL PNEUMONITIS (ASPIRATION). SKIN-IRRITATION, DRYING, REDNESS. EYES-IRRITATION.

Medical Cond Aggravated by Exposure:PERSONS WITH PREEXISTING SKIN DISORDERS OR IMPAIRED LIVER OR KIDNEY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE. ALCOHOLIC BEVERAGE CONSUMPTION CAN ENHANCE THE TOXIC EFFECTS.

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===== First Aid Measures =====
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First Aid:INHALED-REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF BREATHING STOPPED. GIVE OXYGEN IF BREATHING DIFFICULT. INGESTED-DO NOT INDUCE VOMITING! GIVE ALRGE QUANTITIES OF WATER. NEVER GIVE UNCONSCIOUS PERSON ANYTHING BY MOUTH. GET IMMEDIATE MEDICAL ATTENTION. IF VOMITING OCCURS, KEEP HEAD BELOW KNEES TO PREVENT ASPIRATION. SKIN-IMMEDIATELY FLUSH SKIN WITH LOTS OF SOAP & WATER. WASH CLOTHES BEFOR E REUSE. CALL A PH

YSICIAN IMMEDIATELY.

EYES-IMMEDIATELY FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES,
LIFTING EYELIDS. GET IMMEDIATE MEDICAL ATTENTION.

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

Flash Point Method:CC

Flash Point:=7.C, 44.6F

Autoignition Temp:=422.C, 791.6F

Lower Limits:3.3

Upper Limits:19

Extinguishing Media:DRY CHEMICAL, FOAM OR CARBON DIOXIDE. WATER MAY BE
USED TO FLUSH SPILLS AWAY FROM EXPOSURES AND TO DILUTE SPILLS TO
NON-FLAMMABLE MIXTURES.

Fir

e Fighting Procedures:IN THE EVENT OF A FIRE, WEAR FULL PROTECTIVE
CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH
FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE
PRESSURE MODE. WATER S PRAY MAY BE USED TO KEEP FIRE EXPOSED
CONTAINERS COOL.

Unusual Fire/Explosion Hazard:ABOVE FLASH POINT, VAPOR-AIR MIXTURES ARE
EXPLOSIVE WITHIN FLAMMABLE LIMITS NOTED ABOVE. CONTACT WITH STRONG
OXIDIZERS MAY CAUSE FIRE OR EXPLOSION. SENSITIVE TO STATIC
DISCHARGE.

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

Spill Release Procedures:VENTILATE SPILL AREA. REMOVE IGNITION SOURCES.
WEAR APPROPRIATE PERSONAL PROTECTIVE GEAR. ISOLATE HAZARD AREA.
KEEP UNECESSARY & UNPROTECTED PEOPLE AWAY. COLLECT LIQUID IN AN
APPROPRIATE MANNER OR ABS ORB WITH INERT MATERIAL & PLACE IN A
CHEMICAL WASTE CONTAINER; DO NOT USE COMBUSTIBLE MATERIALS. IF
SPILL HAS NOT IGNITED, USE WATER SPRAY TO DISPERSE VAPORS.

Neutralizi

ng Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:PROTECT AGAINST PHYSICAL DAMAGE. STORE
IN A COOL, DRY, WELL-VENTILATED LOCATION, AWAY FROM WHERE FIRE
HAZARD MAY BE ACUTE. SEPARATE FROM INCOMPATIBLES. CONTAINERS SHOULD
BE BONDED & GROUNDED. STORAGE & USE AREAS SHOULD BE NO SMOKING
AREAS. USE NON-SPARKING OOLS & EQUIPMENT.

Other Precautions:EMPTY CONTAINERS MAY BE HAZARDOUS DUE TO RETAI

NING
RESIDUE.OBSERVE ALL WARNINGS & PRECAUTIONS LISTED FOR THIS PRODUCT.

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

Respiratory Protection:RESPIRATORY PROTECTION DEPENDS ON THE LEVEL OF EXPOSURE: UP TO 10 TIMES EXPOSURE LIMIT-HALF-MASK WITH ORGANIC VAPOR CARTRIDGE; UP TO 50 TIMES EXPOSURE LIMIT-FULL FACE RESPIRATOR WITH ORGANIC VAPOR CAR TRIDGE; EMERGENCIES OR UNKNOWN LEVELS-FULL FACE, POSITIVE-PRESSUE, AIR-SUPPLIED RESPIRATOR.

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

Protective Gloves:IMPERVIOUS GLOVES.

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

Other Protective Equipment:IMPERVIOUS PROTECTIVE CLOTHING, BOOTS, LAB COAT, APRON AND COVERALLS, AS APPROPRIATE, TO PREVENT SKIN CONTACT. MAINTAIN EYEWASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health
WARNING: AIR PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES.

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

HCC:F2
Boiling Pt:=111.C, 231.8F
Melt/Freeze Pt:=-95.C, -139.F
Vapor Pres:22@20C
Vapor Density:3.14
Spec Gravity:0.86 @20C
Solubility in Water:0.05GM/100GM H2O@20C
Appearance and Odor:CLEAR, COLORLESS LIQUID. AROMATIC BENZENE-LIKE ODOR.

===== S
tability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES
HEAT, FLAME, STRONG OXIDIZERS, NITRIC AND SULFURIC ACIDS, CHLORINE, NITROGEN TETROXIDE; WILL ATTACK SOME FORMS OF PLASTICS, RUBBER, COATINGS.

Stability Condition to Avoid:HEAT, FLAMES, IGNITION SOURCES AND INCOMPATIBLES.

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

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

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Toxicological Information:SKIN RABBIT LD50: 14100 UL/KG; INHALATION RAT LC50: 49 GM/M3/4HR; IRRITATION DATA: SKIN RABBIT-500 MG, MODERATE; EYE RABBIT, 2 MG/24 HR, SEVERE. INVESTIGATED AS A TUMORIGEN, MUTAGEN, REPRODUCTIVE EFFECTOR. REPRODUCTIVE TOXICITY: HAS SHOWN SOME EVIDENCE OF REPRODUCTIVE EFFECTS IN LABORATORY ANIMALS.

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

Ecological:WHEN RELEASED INTO SOIL: MAY EVAPORATE TO A MODERATE EXTENT, LEACH INTO GROUND WATER, BIODEGRADE TO A MODERATE EXTENT. WHEN RELEASED TO WATER: MAY EVAPORATE TO A MODERATE EXTENT, MAY BIODEGRADE TO MODERATE EXTENT. WHEN RELEASED TO AIR MAY: MAY BE MODERATELY DEGRADED BY PHOTOCHEMICALLY PRODUCED HYDROXY RADICALS, IS EXPECTED TO HAVE A HALF-LIFE OF LESS THAN 1 DAY. PRODUCT IS NOT EXPECTED TO BIOACCUMULATE. MATERIAL HAS A LOG OCTANOL-WATER COEFFICIENT OF LESS THAN 3.0. BIOCONCENTRATION FACTOR=13.2 (EELS). ENVIRONMENTAL TOXICITY: THIS MATERIAL IS EXPECTED TO BE TOXIC TO AQUATIC LIFE. LC50/96HR VALUES FOR FISH ARE BETWEEN 10 & 100 MG/L.

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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 OF IN A RCRA APPROVED WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE & LOCAL REQUIREMENTS.

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

Transport Information:DOT: PROPER SHIPPING NAME-TOLUENE, HAZARD CLASS-3, UN NUMBER-UN1294, PACKING GROUP-II. ICAO (AIR): TOLUENE, HAZARD CLASS-3, UN NUMBER-UN1294, PACKING GROUP-II.

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

SARA Title III Information:TOLUENE (108-88-3): SARA 302-NO; SARA 313 LIST-YES, CHEMICAL CATEGORY-NO.
Federal Reg

ulatory Information:TOLUENE: RCRA CERCLA-1000 LBS, TSCA

261.33 U220, TSCA 8(D)-NO.

State Regulatory Information:WARNING: THIS PRODUCT CONTAINS A
CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS
OR OTHER REPRODUCTIVE HARM.

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

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department
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particular situation.