

MATERIAL SAFETY DATA SHEET

para-CRESOL

CAS #: 106-44-5
MF: C₇H₈O
EC NO: 203-398-6

SYNONYMS

4-CRESOL; P-CRESOL (ACGIH:OSHA); P-CRESYLIC ACID; 1-HYDROXY-4-METHYLBENZENE; P-HYDROXYTOLUENE; 4-HYDROXYTOLUENE; P-KRESOL; P-METHYLHYDROXYBENZENE; 1-METHYL-4-HYDROXYBENZENE; P-METHYLPHENOL; 4-METHYLPHENOL; P-OXYTOLUENE; PARA-CRESOL; PARAMETHYL PHENOL; PHENOL, 4-METHYL- (9CI); P-TOLUOL; P-TOLYL ALCOHOL.

RCRA WASTE NUMBER U052

HAZARDS IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS

HIGHLY TOXIC (USA)
TOXIC (EU)
TOXIC IN CONTACT WITH SKIN.
TOXIC IF SWALLOWED.
VERY TOXIC BY INHALATION.
CAUSES BURNS.
COMBUSTIBLE.
TARGET ORGAN(S): LUNGS; CENTRAL NERVOUS SYSTEM;
DO NOT BREATHE VAPOR.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

FIRST-AID MEASURES

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN IMMEDIATELY.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

ACCIDENTAL RELEASE MEASURES

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

EVACUATE AREA.

SHUT OFF ALL SOURCES OF IGNITION.

COVER WITH DRY-LIME, SAND, OR SODA ASH. PLACE IN COVERED CONTAINERS USING NON-SPARKING TOOLS AND TRANSPORT OUTDOORS.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

HANDLING AND STORAGE/EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

USE ONLY IN A CHEMICAL FUME HOOD.

SAFETY SHOWER AND EYE BATH.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

WASH THOROUGHLY AFTER HANDLING.

DO NOT BREATHE DUST.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

NIOSH/MSHA-APPROVED RESPIRATOR.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

FACESHIELD (8-INCH MINIMUM).

KEEP TIGHTLY CLOSED.

KEEP AWAY FROM HEAT AND OPEN FLAME.

STORE IN A COOL DRY PLACE.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE SOLID

BOILING POINT: 202°C

MELTING POINT: 32°C TO 34°C

FLASHPOINT: 193°F

EXPLOSION LIMITS IN AIR:

UPPER 1%; LOWER 1.1% 150°C

AUTOIGNITION TEMPERATURE: 1038°F

VAPOR PRESSURE: 1MM 20°C

SPECIFIC GRAVITY: 1.034

VAPOR DENSITY: 3.72

SWISS POISON CLASS: 3

STABILITY AND REACTIVITY

STABILITY: STABLE.

INCOMPATIBILITIES: SENSITIVE TO MOISTURE; OXIDIZING AGENTS; BASES

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: CARBON

MONOXIDE, CARBON DIOXIDE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

CAUSES BURNS.
TOXIC IF ABSORBED THROUGH SKIN.
MAY CAUSE EYE IRRITATION.
HIGHLY TOXIC-INHALATION.
MATERIAL IS EXTREMELY DESTRUCTIVE TO THE TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
TOXIC IF SWALLOWED.
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.
EXPOSURE CAN CAUSE: DAMAGE TO THE EYES; DAMAGE TO THE KIDNEYS TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

CHRONIC EFFECTS

TARGET ORGAN(S): CENTRAL NERVOUS SYSTEM; LUNGS; EYES; LIVER; KIDNEYS
RTECS #: GO6475000
IRRITATION DATA
SKN-RBT 517 MG/24H SEV (BIOFX* 5-5/1969)
EYE-RBT 103 MG SEV (BIOFX* 5-5/1969)

TOXICITY DATA

ORL-RAT LD50:207 MG/KG (BIOFX* 5-5/1969)
IHL-RAT LC50:>710 MG/M3/1H (BIOFX* 5-5/1969)
SKN-RAT LD50:750 MG/KG (GTPZAB 18(2),58,1974)
UNR-RAT LD50:1440 MG/KG (GTPPAF 8,145,1972)
ORL-MUS LD50:344 MG/KG (GTPZAB 18(2),58,1974)
IPR-MUS LD50:25 MG/KG (HBTXAC 5,58,1959)
UNR-MUS LD50:160 MG/KG (BJCAAI 6,160,1952)
SKN-RBT LD50:301 MG/KG (BIOFX* 5-5/1969)

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (OTHER OLFACTION EFFECTS)
BEHAVIORAL (TREMOR)
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
GASTROINTESTINAL (CHANGES IN STRUCTURE OR FUNCTION OF SALIVARY GLANDS)
GASTROINTESTINAL (ULCERATION OR BLEEDING FROM STOMACH)
KIDNEY, URETER, BLADDER (OTHER CHANGES)
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

ECOLOGICAL INFORMATION

DATA NOT YET AVAILABLE.

DISPOSAL CONSIDERATIONS

THIS COMBUSTIBLE MATERIAL MAY BE BURNED IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

REGULATORY INFORMATION

EUROPEAN INFORMATION

EC INDEX NO: 604-004-00-9

TOXIC (R 24/25)

TOXIC IN CONTACT WITH SKIN AND IF SWALLOWED (R 34)

CAUSES BURNS.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-TWA 5 PPM (SKIN) (DTLVS* TLV/BEI,1999)

MSHA STANDARD-AIR:TWA 5 PPM (22 MG/M3) (DTLVS* 3,61,1971)

OSHA PEL (GEN INDU):8H TWA 5 PPM (22 MG/M3) (SKIN) (CFRGBR 29,1910.1000,1994)

OSHA PEL (CONSTRUC):8H TWA 5 PPM (22 MG/M3) (SKIN) (CFRGBR 29,1926.55,1994)

OSHA PEL (SHIPYARD):8H TWA 5 PPM (22 MG/M3) (SKIN) (CFRGBR 29,1915.1000,1993)

OSHA PEL (FED CONT):8H TWA 5 PPM (22 MG/M3) (SKIN) (CFRGBR 41,50-204.50,1994)

OEL-AUSTRIA: MAK 5 PPM (22 MG/M3), SKIN, JAN1999

OEL-DENMARK: TEA 5 PPM (22 MG/M3), SKIN, JAN1999

OEL-FRANCE: VME 5 PPM (22 MG/M3), JAN1999

OEL-JAPAN: OEL 5 PPM (22 MG/M3), JAN1999

OEL-THE NETHERLANDS: MAC-TGG 5 PPM (22 MG/M3), SKIN, JAN1999

OEL-NORWAY: TWA 5 PPM (22 MG/M3), JAN1999

OEL-UNITED KINGDOM: TWA 5 PPM (22 MG/M3), SKIN, SEP2000

OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO P-CRESOL-AIR:10H TWA 2.3 PPM

NIOSH* DHHS #92-100,1992

NOHS 1974: HZD 84266; NIS 48; TNF 4394; NOS 34; TNE 33253

NOES 1983: HZD 84266; NIS 8; TNF 1057; NOS 14; TNE 21313; TFE 16798

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA 8(A) PRELIMINARY ASSESSMENT INFORMATION, FINAL RULE
FEREAC 47,26992,82

EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES
ON EPA IRIS DATABASE

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

NIOSH ANALYTICAL METHOD, 1994: P-CRESOL IN URINE, 8305

NIOSH ANALYTICAL METHOD, 1994: CRESOL (ALL ISOMERS) AND PHENOL, 2546

NTP TOXICITY STUDIES, RPT# TOX-09, OCTOBER 2000

U.S. INFORMATION: THIS PRODUCT IS SUBJECT TO SARA SECTION 313
REPORTING REQUIREMENTS.