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M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: 289116
NAME: CARBON TETRACHLORIDE, ANHYDROUS, 99.5+%

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 56-23-5
MF: CCL4
EC NO: 200-262-8

SYNONYMS

BENZINFORM * CARBONA * CARBON CHLORIDE (CCL4) * CARBON TET * CARBON
TETRACHLORIDE (ACGIH:OSHA) * CHLORID UHLICITY (CZECH) * CZTEROCHLOREK
WEGLA (POLISH) * ENT 4,705 * ENT 27164 * FLUKOIDS * HALON 1040 *
METHANE TETRACHLORIDE * METHANE, TETRACHLORO- * NECATORINA *
PERCHLOROMETHANE * R 10 * RCRA WASTE NUMBER U211 * R 10 (REFRIGERANT)
* TETRACHLOORKOOLSTOF (DUTCH) * TETRACHLOORMETAAN *
TETRACHLORKOHLNSTOFF, TETRA (GERMAN) * TETRACHLORMETHAN (GERMAN) *
TETRACHLOROCARBON * TETRACHLOROMETHANE (OSHA) * TETRACHLORURE DE
CARBONE (FRENCH) * TETRAFLOROMETANO (ITALIAN) * TETRAFLORURO DI
CARBONIO (ITALIAN) * TETRAFINOL * TETRAFORM * TETRASOL * UNIVERM *
VERMOESTRICID *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS

TOXIC
DANGEROUS FOR THE ENVIRONMENT
MAY CAUSE CANCER.
TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
TOXIC: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE
THROUGH INHALATION.
HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS
IN THE AQUATIC ENVIRONMENT.
DANGEROUS FOR THE OZONE LAYER.
PROBABLE CARCINOGEN (US)
READILY ABSORBED THROUGH SKIN.
TARGET ORGAN(S):
LIVER
KIDNEYS
DO NOT BREATHE VAPOR.
WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
REFER TO MANUFACTURER/SUPPLIER FOR INFORMATION ON
RECOVERY/RECYCLING.
AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/
SAFETY DATA SHEETS.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.

IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT,
CALL A PHYSICIAN.

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
AMOUNTS OF WATER.

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.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -
EXTINGUISHING MEDIA

WATER SPRAY.

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.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

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

WEAR DISPOSABLE COVERALLS AND DISCARD THEM AFTER USE.

ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR
DISPOSAL.

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

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -
REFER TO SECTION 8.

SECTION 8. - - - - - 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 VAPOR.

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

AVOID PROLONGED OR REPEATED EXPOSURE.

NIOSH/MSHA-APPROVED RESPIRATOR IN NONVENTILATED AREAS AND/OR FOR
EXPOSURE ABOVE THE ACGIH TLV.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

PHYSICAL PROPERTIES

BOILING POINT: 76 C TO 77 C

MELTING POINT: -23 C

FLASHPOINT NONE

VAPOR PRESSURE: 143MM 30 C 91MM 20 C

SOLUBILITY:

SOLUBLE IN ETHA
MISCIBLE WITH:

NAPHTHA

SPECIFIC GRAVITY: 1.594

VAPOR DENSITY: 5.32

ODOR THRESHOLD: 21.4 PPM

VISCOSITY 2.03 PAS

SWISS POISON CLASS: 1*

SECTION 10. - - - - - -STABILITY AND REACTIVITY - - - - -

STABILITY

STABLE.

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

EXPOSURE CAN CAUSE:
STOMACH PAINS, VOMITING, DIARRHEA.
NAUSEA, DIZZINESS AND HEADACHE
DAMAGE TO THE EYES
DAMAGE TO THE LIVER
DAMAGE TO THE KIDNEYS
EXPOSURE TO AND/OR CONSUMPTION OF ALCOHOL
MAY INCREASE TOXIC EFFECTS.
MAY CAUSE SKIN IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
MAY CAUSE EYE IRRITATION.
MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
MAY BE HARMFUL IF INHALED.
MAY BE HARMFUL IF SWALLOWED.

CHRONIC EFFECTS

TARGET ORGAN(S):
LIVER
KIDNEYS
EYES
NERVES
HEART
OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDER(S) BASED ON TESTS WITH
LABORATORY ANIMALS.
THIS IS OR CONTAINS A COMPONENT THAT HAS BEEN REPORTED TO BE
CARCINOGENIC BASED ON ITS IARC, OSHA, ACGIH, NTP OR EPA CLASSIFICATION.

RTECS #: FG4900000

CARBON TETRACHLORIDE

IRRITATION DATA

SKN-RBT 4 MG MLD	XEURAQ MDDC-1715
SKN-RBT 500 MG/24H MLD	85JCAE -,91,1986
EYE-RBT 2200 UG/30S MLD	XEURAQ MDDC-1715
EYE-RBT 500 MG/24H MLD	85JCAE -,91,1986

TOXICITY DATA

ORL-MAN LDLO:429 MG/KG	ZHYGAM 19,781,1973
IHL-HMN LCLO:1000 PPM	PCOC** -,198,1966
IHL-HMN LCLO:5 PPH/5M	TABIA2 3,231,1933
UNR-MAN LDLO:93 MG/KG	85DCAI 2,73,1970
ORL-RAT LD50:2350 MG/KG	ARTODN 54,275,1983
IHL-RAT LC50:8000 PPM/4H	NPPIRI* 1,16,1974
SKN-RAT LD50:5070 MG/KG	SPEADM 78-1,16,1978
IPR-RAT LD50:1500 UL/KG	XEURAQ MDDC-1715
ORL-MUS LD50:8263 MG/KG	JPPMAB 3,169,1951
IHL-MUS LC50:9526 PPM/8H	JIHTAB 29,382,1947
IPR-MUS LD50:572 MG/KG	PHMCAA 10,172,1968
SCU-MUS LD50:31 GM/KG	JPETAB 123,224,1958
IPR-DOG LD50:1500 MG/KG	TXAPA9 10,119,1967

ORL-RBT LD50:5760 MG/KG
SKN-RBT LD50:>20 GM/KG
IVN-RBT LD50:5840 MG/KG
ORL-GPG LD50:5760 MG/KG
SKN-GPG LD50:>9400 UL/KG
IPR-CKN LD50:4497 MG/KG
ORL-MAM LD50:6 GM/KG
IHL-MAM LC50:34500 MG/M3

GISAAA 33(1),32,1968
ATDAEI 1,712,1992
ZAPPAN 118,305,1974
GISAAA 33(1),32,1968
TXAPA9 7,559,1965
BVJOA9 127,304,1971
GTPZAB 32(10),25,1988
GTPZAB 24(3),17,1980

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (MIOSIS)

BEHAVIORAL (SOMNOLENCE)

BEHAVIORAL (TREMOR)

BEHAVIORAL (ANOREXIA, HUMAN)

BEHAVIORAL (COMA)

BEHAVIORAL (ANTIPSYCHOTIC)

CARDIAC (CHANGE IN RATE)

LUNGS, THORAX OR RESPIRATION (CYANOSIS)

LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)

GASTROINTESTINAL (NAUSEA OR VOMITING)

GASTROINTESTINAL (OTHER CHANGES)

LIVER (FATTY LIVER DEGENERATION)

LIVER (LIVER FUNCTION TESTS IMPAIRED)

KIDNEY, URETER, BLADDER (INTERSTITIAL NEPHRITIS)

BLOOD (HEMORRHAGE)

MATERNAL EFFECTS (OTHER EFFECTS ON FEMALE)

EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)

EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)

SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)

SPECIFIC DEVELOPMENTAL ABNORMALITIES (HOMEOSTASIS)

EFFECTS ON NEWBORN (VIABILITY INDEX)

EFFECTS ON NEWBORN (WEANING OR LACTATION INDEX)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES

(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR

- ECODMEEETHEPNEORMANFORXWXXX14BC9 094T0IONDINDEXTX6X8X0XXXXXXIXNXXXXXXXXXXXXXXXXXXXXSEER F

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XXXXXXEA (IAL.STEM)) Tj 108 0 TD 0 Tc 0.15 Tw () T -306 -11.25 TD 0.15 Tc 0 Tw BSERVRE.LLRY

R 59

DANGEROUS FOR THE OZONE LAYER.

S 36/37

WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.

S 45

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

S 61

AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/ SAFETY DATA SHEETS.

NIOSH REL TO CARBON TETRACHLORIDE-AIR:CA STEL 2 PPM/60M
NIOSH* DHHS #92-100,1992
NOHS 1974: HZD 17490; NIS 73; TNF 5152; NOS 56; TNE 64009
NOES 1983: HZD 17490; NIS 77; TNF 6629; NOS 72; TNE 104174; TFE 20699
ATSDR TOXICOLOGY PROFILE (NTIS** PB/90/168196/AS)
EPA GENETOX PROGRAM 1988, POSITIVE: CARCINOGENICITY-MOUSE/RAT; S
CEREVISIAE GENE CONVERSION
EPA GENETOX PROGRAM 1988, POSITIVE: S CEREVISIAE-HOMOZYGOSIS; S
CEREVISIAE-REVERSION
EPA GENETOX PROGRAM 1988, NEGATIVE: HISTIDINE REVERSION-AMES TEST;
SPERM MORPHOLOGY-MOUSE
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
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: HYDROCARBONS, HALOGENATED, 1003
NTP 9TH REPORT ON CARCINOGENS,2000:REASONABLY ANTICIPATED TO BE HUMAN
CARCINOGEN

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.
THIS PRODUCT IS OR CONTAINS CHEMICAL(S) KNOWN TO THE STATE OF
CALIFORNIA TO CAUSE CANCER.

SECTION 16. - - - - - OTHER INFORMATION- - - - -
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