

Valid 05/2003 - 07/2003

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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) \* TETRACLOROMETANO (ITALIAN) \* TETRACLORURO 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

- ECOCHEMICAL NORMAN FOR XXXXX14BC9 094T0IONDINDEXXX6XX8XXXXXXIXXIXXXXXXXXXXXXXXXXXXXXXSEER F

ON INDEXXXXXXX-) Tj 6 8XXXXXXXXXXXXXXXXX TD (-) Tj 6 8 0 TTION INDEXXXXXXX-  
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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