

MATERIAL SAFETY DATA SHEET

7-1-93

Sigma-Aldrich Corporation
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This information valid through May 01, 1993

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IDENTIFICATION

PRODUCT #: 84711 NAME: CARBON DISULFIDE

CAS #: 75-15-0

SYNONYMS

CARBON BISULFIDE * CARBON BISULFIDE (DOT) * CARBON BISULPHIDE *
CARBON DISULFIDE (ACGIH, DOT, OSHA) * CARBON DISULPHIDE * CARBONE
(SUFURE DE) (FRENCH) * CARBONIO (SOLFURO DI) (ITALIAN) * CARBON
SULFIDE * DITHIOCARBONIC ANHYDRIDE * KOHLENDISULFID
(SCHWEFELKOHLENSTOFF) (GERMAN) * KOOLSTOFDISULFIDE (ZWAVELKOOLSTOF)
(DUTCH) * NCI-C04591 * RCRA WASTE NUMBER P022 * SCHWEFELKOHLENSTOFF
(GERMAN) * SOLFURO DI CARBONIO (ITALIAN) * SULPHOCARBONIC ANHYDRIDE *
UN 1131 (DOT) * WEEVILTOX * WEGLA DWUSIARCZEK (POLISH) *

TOXICITY HAZARDS

RTECS NO: PF6650000

CARBON DISULFIDE

TOXICITY DATA

IHL-HMN LCL0:4000 PPM/30M	29ZWAE -,118,68
IHL-HMN LCL0:2000 PPM/5M	TABIA2 3,231,33
UNR-MAN LDLO:186 MG/KG	85DCAI 2,73,70
ORL-RAT LD50:3188 MG/KG	GISAAA 31(1),13,66
IHL-RAT LC50:25 GM/M3/2H	85GMAT -,32,82
ORL-MUS LD50:2780 MG/KG	GISAAA 31(1),13,66
IHL-MUS LC50:10 GM/M3/2H	85GMAT -,32,82
ORL-RBT LD50:2550 MG/KG	GISAAA 31(1),13,66
ORL-GPG LD50:2125 MG/KG	GISAAA 31(1),13,66

REVIEWS, STANDARDS, AND REGULATIONS

ACGIH TLV-TWA 10 PPM (SKIN) 85INA8 5,104,86
MSHA STANDARD-AIR:TWA 20 PPM (60 MG/M3) (SKIN) DTLVS* 3,39,71
OSHA PEL:8H TWA 20 PPM;CL 30 PPM;PK 100 PPM/30M/8H FEREAC 54,2923,89
OSHA PEL FINAL:8H TWA 4 PPM (12 MG/M3);STEL 12 PPM (36 MG/M3)(SKIN)
FEREAC 54,2923,89
OEL-ARAB REPUBLIC OF EGYPT:TWA 10 PPM (30 MG/M3);SKIN JANUARY 1993
OEL-AUSTRALIA:TWA 10 PPM (30 MG/M3);SKIN JANUARY 1993
OEL-BELGIUM:TWA 10 PPM (31 MG/M3);SKIN JANUARY 1993
OEL-CZECHOSLOVAKIA:TWA 10 MG/M3;STEL 20 MG/M3 JANUARY 1993
OEL-DENMARK:TWA 5 PPM (15 MG/M3);SKIN JANUARY 1993
OEL-FINLAND:TWA 10 PPM (30 MG/M3);STEL 20 PPM (60 MG/M3);SKIN JANUARY
OEL-FRANCE:TWA 10 PPM (30 MG/M3);STEL 25 PPM (75 MG/M3) JANUARY 1993
OEL-GERMANY:TWA 10 PPM (30 MG/M3);SKIN JANUARY 1993
OEL-HUNGARY:TWA 5 MG/M3;STEL 10 MG/M3;SKIN JANUARY 1993
OEL-INDIA:TWA 10 PPM (30 MG/M3);SKIN JANUARY 1993
OEL-JAPAN:TWA 10 PPM (31 MG/M3);SKIN JANUARY 1993
OEL-POLAND:TWA 25 MG/M3 JANUARY 1993
OEL-RUSSIA:TWA 10 PPM;STEL 1 MG/M3 JANUARY 1993
OEL-SWEDEN:TWA 5 PPM (16 MG/M3);STEL 8 PPM (25 MG/M3);SKIN JANUARY
1993
OEL-SWITZERLAND:TWA 10 PPM (30 MG/M3);STEL 20 PPM (60 MG/M3);SKIN
JANUARY 1993
OEL-THAILAND:TWA 20 PPM (60 MG/M3);STEL 30 PPM (90 MG/M3) JANUARY 1993
OEL-THE NETHERLANDS:TWA 20 PPM (60 MG/M3);SKIN JANUARY 1993
OEL-THE PHILLIPPINES:TWA 20 PPM (60 MG/M3);SKIN JANUARY 1993
OEL-TURKEY:TWA 10 PPM (65 MG/M3);SKIN JANUARY 1993

OEL-UNITED KINGDOM:TWA 10 PPM (30 MG/M3);SKIN JANUARY 1993
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA, NEW ZEALAND, SINGAPORE,
VIETNAM CHECK ACGIH TLV
NIOSH REL TO CARBON DISULFIDE-AIR:10H TWA 1 PPM (SK);STEL 10 PPM (SK)
NIOSH* DHHS #92-100,92
NOHS 1974: HZD 17370; NIS 24; TNF 1074; NOS 27; TNE 24200
NOES 1983: HZD 17370; NIS 20; TNF 751; NOS 44; TNE 45760; TFE 5834
EPA GENETOX PROGRAM 1988, POSITIVE: SPERM MORPHOLOGY-HUMAN
EPA TSCA CHEMICAL INVENTORY, JUNE 1990
ON EPA IRIS DATABASE
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 1993
NIOSH ANALYTICAL METHODS: SEE CARBON DISULFIDE, 1600
NTP CARCINOGENESIS STUDIES;SELECTED, OCTOBER 1992

TARGET ORGAN DATA

LIVER (FATTY LIVER DEGENERATION)
PATERNAL EFFECTS (SPERMATOGENESIS)
PATERNAL EFFECTS (PROSTATE, SEMINAL VESICLE, COWPER'S, ACCESSORY
GLANDS
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)
EFFECTS ON NEWBORN (BEHAVIORAL)
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS)
DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

----- HEALTH HAZARD DATA -----

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
CAUSES SKIN IRRITATION.
EXPOSURE CAN CAUSE:
DAMAGE TO THE KIDNEYS
DAMAGE TO THE LIVER
DAMAGE TO THE HEART
MAY CAUSE NERVOUS SYSTEM DISTURBANCES.
MAY CAUSE CONVULSIONS.

CHRONIC EFFECTS

OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDER(S) BASED ON TESTS WITH
LABORATORY ANIMALS.
LABORATORY EXPERIMENTS HAVE SHOWN MUTAGENIC EFFECTS.
EYES
FEMALE REPRODUCTIVE SYSTEM
MALE REPRODUCTIVE SYSTEM

FIRST AID

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED
CLOTHING AND SHOES.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.

----- PHYSICAL DATA -----

BOILING PT: 46 C
MELTING PT: -111.5 C
SPECIFIC GRAVITY: 1.266
VAPOR DENSITY: 2.67
VAPOR PRESSURE: 400 MM @ 28 C
200 MM @ 10.6 C

APPEARANCE AND ODOR

COLORLESS LIQUID

----- FIRE AND EXPLOSION HAZARD DATA -----

FLASHPOINT: -22 F BY:
AUTOIGNITION TEMPERATURE: 212 F
LOWER EXPLOSION LEVEL: 1.3%
UPPER EXPLOSION LEVEL: 50%

EXTINGUISHING MEDIA

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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

DANGER:
EXTREMELY FLAMMABLE.
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
FLASH BACK.
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

----- REACTIVITY DATA -----

INCOMPATIBILITIES
OXIDIZING AGENTS
AMINES
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE
SULFUR OXIDES

----- SPILL OR LEAK PROCEDURES -----

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR
DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

WASTE DISPOSAL METHOD
BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
FLAMMABLE.
OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS.

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
DO NOT BREATHE VAPOR.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
READILY ABSORBED THROUGH SKIN.
WASH THOROUGHLY AFTER HANDLING.
TOXIC.

IRRITANT.
POSSIBLE MUTAGEN/TERATOGEN.
REPRODUCTIVE HAZARD.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
MAY EXPLODE WHEN HEATED.
MAY DEVELOP PRESSURE.

STENCH.
TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
POSSIBLE RISK OF IRREVERSIBLE EFFECTS.
KEEP AWAY FROM SOURCES OF IGNITION. NO SMOKING.
IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE (SHOW THE LABEL WHERE
POSSIBLE).
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.

POSSIBLE MUTAGEN.
POSSIBLE TERATOGEN.
NEUROLOGICAL HAZARD.
TARGET ORGAN(S):
REFRIGERATE.

REGULATORY INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

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----- ADDITIONAL PRECAUTIONS AND COMMENTS -----

ADDITIONAL INFORMATION

CAUTION: CONTACT WITH AZIDES OR ACTIVE METALS SUCH AS SODIUM,
POTASSIUM, ZINC, ETC., MAY CAUSE FIRES AND EXPLOSIONS.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE
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