



JAN 20 1999

SIGMA-ALDRICH

ALDRICH CHEMICAL COMPANY, INC.
P.O. BOX 355
MILWAUKEE, WISCONSIN 53201, USA

ATTN: SAFETY DIRECTOR
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DATE 01/11/99
CUST#: 523216
PO#: CC/ONSRUD

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

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

CATALOG #: 32702-6
NAME: SILVER, WIRE, 0.5MM DIAM., 99.9%

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

CAS #: 7440-22-4
MF: AG
EC NO: 231-131-3

SYNONYMS

ARGENTUM * C.I. 77820 * L-3 * SHELL SILVER * SILBER (GERMAN) * SILVER
(ACGIH:OSHA) * SILVER ATOM *

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

LABEL PRECAUTIONARY STATEMENTS

TOXIC
TOXIC IF SWALLOWED.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.
AIR SENSITIVE

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

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.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA
USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.

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- - - - -

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.

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SECTION 7. - - - - - HANDLING AND STORAGE - - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION - - - - -

CHEMICAL SAFETY GOGGLES.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
MECHANICAL EXHAUST REQUIRED.
NIOSH/MSHA-APPROVED RESPIRATOR.
SAFETY SHOWER AND EYE BATH.
AVOID CONTACT AND INHALATION.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
TOXIC.
KEEP TIGHTLY CLOSED.
AIR SENSITIVE

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

APPEARANCE AND ODOR
SILVER WIRE

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

INCOMPATIBILITIES
STRONG ACIDS
STRONG BASES
OXYGEN
SENSITIVE TO AIR

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

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

ACUTE EFFECTS
HARMFUL IF SWALLOWED.
MAY BE HARMFUL IF INHALED.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
MAY CAUSE ARGYRIA (A SLATE-GRAY OR BLUIISH DISCOLORATION OF THE SKIN
AND DEEP TISSUES DUE TO THE DEPOSIT OF INSOLUBLE ALBUMINATE OF
SILVER).
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: VW3500000

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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 P A G E 3

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NAME: SILVER, WIRE, 0.5MM DIAM., 99.9%

SILVER

TARGET ORGAN DATA
TUMORIGENIC (EQUIVOCAL TUMORIGENIC AGENT BY RTECS CRITERIA)
TUMORIGENIC (TUMORS AT SITE OF APPLICATION)

ADDITIONAL INFORMATION
ORL-MUS LD50: 100 MG/KG
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.

SECTION 12. ----- ECOLOGICAL INFORMATION -----
DATA NOT YET AVAILABLE.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----
MATERIAL IN THE ELEMENTAL STATE SHOULD BE RECOVERED FOR REUSE OR
RECYCLING.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----
CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. ----- REGULATORY INFORMATION -----
EUROPEAN INFORMATION
TOXIC
R 25
TOXIC IF SWALLOWED.
S 45
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
S 36/37/39
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.

REVIEWS, STANDARDS, AND REGULATIONS
OEL=MAK
ACGIH TLV-TWA 0.1 MG/M3, DUST, FUME DTLVS* TLV/BEI, 1997
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION
FEREAC 54,7740,1989
MSHA STANDARD-Air:TWA 0.01 MG/M3
DTLVS* 3,231,1971
OSHA PEL (GEN INDU):8H TWA 0.01 MG(AG)/M3
CFRGR 29,1910.1000,1994
OSHA PEL (CONSTRUC):8H TWA 0.01 MG(AG)/M3
CFRGR 29,1926.55,1994
OSHA PEL (SHIPYARD):8H TWA 0.01 MG(AG)/M3

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NAME: SILVER, WIRE, 0.5MM DIAM., 99.9%

CFRGBR 29,1915.1000,1993
OSHA PEL (FED CONT):8H TWA 0.01 MG(AG)/M3
CFRGBR 41,50-204.50,1994
OEL-AUSTRALIA:TWA 0.1 MG/M3 JAN 1993
OEL-BELGIUM:TWA 0.1 MG/M3 JAN 1993
OEL-DENMARK:TWA 0.01 MG/M3 JAN 1993
OEL-FINLAND:TWA 0.1 MG/M3 JAN 1993
OEL-FRANCE:TWA 0.1 MG/M3 JAN 1993
OEL-GERMANY:TWA 0.01 MG/M3 JAN 1993
OEL-RUSSIA:STEL 1 MG/M3 JAN 1993
OEL-SWITZERLAND:TWA 0.01 MG/M3 JAN 1993
OEL-UNITED KINGDOM:TWA 0.1 MG/M3 JAN 1993
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO SILVER, METAL AND SOLUBLE COMPDS-AIR:10H TWA 0.01 MG/M3
NIOSH* DHHS #92-100,1992
NOHS 1974: HZD 68730; NIS 53; TNF 2163; NOS 54; TNE 19343
NOES 1983: HZD M1804; NIS 4; TNF 156; NOS 9; TNE 3937; TFE 2435
NOES 1983: HZD 68730; NIS 118; TNF 13582; NOS 76; TNE 204921; TFE 37439
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, JUNE 1998
NIOSH ANALYTICAL METHOD, 1994: ELEMENTS BY ICP, 7300
NIOSH ANALYTICAL METHOD, 1994: ELEMENTS IN BLOOD OR TISSUE, 8005
NIOSH ANALYTICAL METHOD, 1994: METALS IN URINE, 8310
OSHA ANALYTICAL METHOD #ID-125G

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

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