

Product Number: **268275**

Product Name: **Copper**

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Product Info

Valid 05/2003 - 07/2003

[Description / Pricing](#)

Aldrich Chemical Co., Inc.
1001 West St. Paul
Milwaukee, WI 53233 USA
Phone: 414-273-3850

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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 #: 268275
 NAME: COPPER, FOIL, 0.127MM THICK, 99+%

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -
 CAS #: 7440-50-8
 MF: CU
 EC NO: 231-159-6

SYNONYMS
 ALLBRI NATURAL COPPER * ANAC 110 * ARWOOD COPPER * BRONZE POWDER *
 CDA 101 * CDA 102 * CDA 110 * CDA 122 * C.I. 77400 * C.I. PIGMENT
 METAL 2 * COPPER (ACGIH:OSHA) * COPPER-AIRBORNE * COPPER BRONZE *
 COPPER-MILLED * COPPER SLAG-AIRBORNE * COPPER SLAG-MILLED * 1721 GOLD
 * GOLD BRONZE * KAFAR COPPER * M 1 * M 3 * M 4 * M1 (COPPER) * M2
 (COPPER) * M3 (COPPER) * M4 (COPPER) * M3R * M3S * OFHC CU * RANEY
 COPPER *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -
 LABEL PRECAUTIONARY STATEMENTS
 AUTOIGNITION TEMPERATURE:
 AIR SENSITIVE

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 NOT BREATHING GIVE ARTIFICIAL
 RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
 IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
 AMOUNTS OF WATER.
 IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF
 WATER FOR AT LEAST 15 MINUTES.
 CONTAMINATION OF THE EYES SHOULD BE TREATED BY IMMEDIATE AND PROLONGED
 IRRIGATION WITH COPIOUS AMOUNTS OF WATER.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -
 EXTINGUISHING MEDIA
 DRY CHEMICAL POWDER.
 DO NOT USE WATER.
 SPECIAL FIREFIGHTING PROCEDURES
 WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
 PREVENT CONTACT WITH SKIN AND EYES.
 UNUSUAL FIRE AND EXPLOSIONS HAZARDS
 THIS MATERIAL, LIKE MOST MATERIALS IN POWDER FORM, IS CAPABLE OF
 CREATING A DUST EXPLOSION.
 FLAMMABLE SOLID.
 EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -
 WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY
 RUBBER GLOVES.
 SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
 AVOID RAISING DUST.
 VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.
 EVACUATE AREA.
 USE NONSPARKING TOOLS.

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

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -
 SAFETY SHOWER AND EYE BATH.
 MECHANICAL EXHAUST REQUIRED.

WASH THOROUGHLY AFTER HANDLING.
DO NOT BREATHE DUST.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
NIOSH/MSHA-APPROVED RESPIRATOR.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
CHEMICAL SAFETY GOGGLES.
IRRITANT.
KEEP TIGHTLY CLOSED.
STORE UNDER N2.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -
APPEARANCE AND ODOR
COPPER-COLORED FOIL

SECTION 10. - - - - - --STABILITY AND REACTIVITY - - - - -
STABILITY
STABLE.
CONDITIONS TO AVOID
MAY DISCOLOR ON EXPOSURE TO AIR AND MOISTURE.
INCOMPATIBILITIES
STRONG ACIDS
VIOLENT REACTION MAY OCCUR WITH ACETYLENE, AMMONIUM NITRATE, BROMATES,
CHLORATES, IODATES, CHLORINE, CHLORINE TRIFLUORIDE, ETHYLENE OXIDE,
FLUORINE, HYDROGEN PEROXIDE, HYDRAZINE MONONITRIDE, HYDROGEN SULFIDE,
HYDRAZOIC ACID, LEAD AZIDE, POTASSIUM PEROXIDE, SODIUM AZIDE, AND
SODIUM PEROXIDE. REACTION OF COPPER WOOL, TRICHLOROACETIC ACID IN
DIMETHYL SULFOXIDE IS VERY EXOTHERMIC.
STRONG OXIDIZING AGENTS
ACID CHLORIDES
HALOGENS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -
ACUTE EFFECTS
CAUSES SKIN IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
CAUSES EYE IRRITATION.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
MAY BE HARMFUL IF INHALED.
MAY BE HARMFUL IF SWALLOWED.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
CHRONIC EFFECTS
TARGET ORGAN(S):
DAMAGE TO THE LUNGS
RTECS #: GL5325000
COPPER
TOXICITY DATA
IPR-MUS LD50:3500 UG/KG 38MKAJ 2A,1623,1981
TARGET ORGAN DATA
LUNGS, THORAX OR RESPIRATION (FIBROSIS, FOCAL)
LUNGS, THORAX OR RESPIRATION (TUMORS)
GASTROINTESTINAL (NAUSEA OR VOMITING)
LIVER (HEPATITIS: HEPATOCELLULAR NECROSIS, ZONAL)
LIVER (OTHER CHANGES)
KIDNEY, URETER, BLADDER (OTHER CHANGES)
MATERNAL EFFECTS (UTERUS, CERVIX, VAGINA)
EFFECTS ON FERTILITY (FEMALE FERTILITY INDEX)
EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY)
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CENTRAL NERVOUS SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
TUMORIGENIC (EQUIVOCAL TUMORIGENIC AGENT BY RTECS CRITERIA)
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 - - - - -
REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
ACGIH TLV-TWA 1 MG(CU)/M3, DUST, MIST DTLVS* TLV/BEI,1999
ACGIH TLV-TWA 0.2 MG(CU)/M3, FUME DTLVS* TLV/BEI,1999
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION
FEREAC 54,7740,1989
MSHA STANDARD-AIR:TWA 0.1 MG/M3 (FUME,DUSTS & MISTS)
DTLVS* 3,59,1971
OSHA PEL (GEN INDU):8H TWA 0.1 MG(CU)/M3, FUME
CFRGR 29,1910.1000,1994
OSHA PEL (GEN INDU):8H TWA 1 MG(CU)/M3, DUSTS AND MISTS
CFRGR 29,1910.1000,1994
OSHA PEL (CONSTRUC):8H TWA 0.1 MG(CU)/M3, FUME
CFRGR 29,1926.55,1994
OSHA PEL (CONSTRUC):8H TWA 1 MG(CU)/M3, DUSTS AND MISTS
CFRGR 29,1926.55,1994
OSHA PEL (SHIPYARD):8H TWA 0.1 MG(CU)/M3, FUME
CFRGR 29,1915.1000,1993
OSHA PEL (SHIPYARD):8H TWA 1 MG(CU)/M3, DUSTS AND MISTS
CFRGR 29,1915.1000,1993
OSHA PEL (FED CONT):8H TWA 0.1 MG/M3, FUME
CFRGR 41,50-204.50,1994
OSHA PEL (FED CONT):8H TWA 1 MG/M3, DUSTS AND MISTS
CFRGR 41,50-204.50,1994
OEL-ARAB REPUBLIC OF EGYPT: TWA 0.1 MG/M3 (FUME), JAN1993
OEL-AUSTRALIA: TWA 0.2 MG/M3 (FUME), JAN1993
OEL-AUSTRALIA: TWA 1 MG/M3 (DUST), JAN1993
OEL-AUSTRIA: MAK 1 MG/M3, JAN1999
OEL-AUSTRIA: MAK 0.1 MG/M3 (FUME), JAN1999
OEL-BELGIUM: TWA 0.2 MG/M3 (FUME), JAN1993
OEL-DENMARK: TWA 0.1 MG/M3, JAN1999
OEL-BELGIUM: TWA 1 MG/M3 (DUST), JAN1993
OEL-FINLAND: TWA 0.2 MG/M3 (FUME), JAN1999
OEL-FINLAND: TWA 1 MG/M3 (DUST), JAN1999
OEL-FRANCE: VME (FUME) 0.2 MG/M3, JAN1999
OEL-FRANCE: VME (DUST) 1 MG/M3, JAN1999
OEL-FRANCE: VME 1 MG/M3, STEL 2 MG/M3 (DUST), JAN1993
OEL-GERMANY: MAK 0.1 MG/M3 (FUME), JAN1999
OEL-GERMANY: MAK 1 MG/M3 (DUST), JAN1999
OEL-HUNGARY: TWA 0.2 MG/M3, STEL 0.4 MG/M3 (DUST), JAN1993
OEL-INDIA: TWA 0.2 MG/M3 (FUME), JAN1993
OEL-THE NETHERLANDS: MAC-TGG 1 MG/M3 (DUST), JAN1999
OEL-THE NETHERLANDS: MAC-TGG 1 MG/M3 (DUST), JAN1993
OEL-NORWAY: TWA 0.05 MG(CO)/M3, JAN1999
OEL-NORWAY: TWA 0.1 MG/M3, FUME, JAN1999
OEL-THE PHILIPPINES: TWA 1.0 MG/M3 (FUME), JAN1993
OEL-POLAND: MAC(TWA) FUME 0.1 MG/M3, MAC(STEL) FUME 0.3 MG/M3, JAN1999
OEL-POLAND: MAC(TWA) DUST 1 MG/M3, MAC(STEL) DUST 2 MG/M3, JAN1999
OEL-RUSSIA: STEL 0.5 PPM (1 MG/M3) (DUST), JAN1993
OEL-SWEDEN: NGV 0.2 MG/M3 (RESP. DUST), JAN1999
OEL-SWEDEN: NGV 1 MG/M3 (TOTAL DUST), JAN1999
OEL-SWITZERLAND: MAK-W 0.1 MG/M3, KZG-W 0.2 MG/M3 (FUME), JAN1999
OEL-SWITZERLAND: MAK-W 1 MG/M3, KZG-W 1 MG/M3, JAN1999
OEL-THAILAND: TWA 0.1 MG/M3 (FUME), JAN1993
OEL-THAILAND: TWA 1 MG/M3, JAN1993
OEL-UNITED KINGDOM: TWA 0.2 MG/M3, FUME, SEP2000
OEL-UNITED KINGDOM: TWA 1 MG/M3, STEL 2 MG/M3, DUSTS AND MISTS AS CU,
SEP2000
OEL-UNITED KINGDOM: TWA 1 MG(W)/M3, STEL 3 MG(W)/M3, SEP2000
OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO COPPER, DUSTS AND MISTS-AIR:10H TWA 1 MG/M3
NIOSH* DHHS #92-100,1992
NIOSH REL TO COPPER, FUME-AIR:10H TWA 0.1 MG/M3
NIOSH* DHHS #92-100,1992
NOHS 1974: HZD M2276; NIS 27; TNF 1213; NOS 35; TNE 24737
NOHS 1974: HZD 20115; NIS 176; TNF 12177; NOS 105; TNE 224406
NOES 1983: HZD X5915; NIS 5; TNF 162; NOS 5; TNE 11889; TFE 421
NOES 1983: HZD X5983; NIS 51; TNF 4558; NOS 45; TNE 53282; TFE 8758
NOES 1983: HZD X6807; NIS 2; TNF 16; NOS 2; TNE 625
NOES 1983: HZD X8588; NIS 3; TNF 204; NOS 7; TNE 9443
NOES 1983: HZD 20115; NIS 296; TNF 59839; NOS 158; TNE 920449; TFE
72821
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: ELEMENTS BY ICP, 7300
NIOSH ANALYTICAL METHOD, 1994: COPPER (DUST AND FUME), 7029
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 - - - - -

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