

Valid 05/2003 - 07/2003

Fluka Chemie AG  
 Postfach 260  
 CH-9471 Buchs  
 Switzerland  
 Tel: 081 755 25 11 Fax. 081 756 54 49  
 Night: 071 228 3600

## 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 #: 61145  
 NAME: COPPER(II) ACETATE MONOHYDRATE

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -  
 CAS #: 6046-93-1  
 MF: C4H6CUO4.H2O  
 SYNONYMS  
 COPPER(2+) ACETATE, MONOHYDRATE \* COPPER(II) ACETATE MONOHYDRATE \*  
 COPPER DIACETATE MONOHYDRATE \* CUPRIC ACETATE MONOHYDRATE \*

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -  
 LABEL PRECAUTIONARY STATEMENTS  
 HARMFUL  
 HARMFUL IF SWALLOWED.  
 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.  
 TARGET ORGAN(S):  
 LIVER  
 LUNGS  
 WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE  
 PROTECTION.

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 SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER  
 FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND  
 SHOES. CALL A PHYSICIAN.  
 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  
 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 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.

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

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

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.  
 KEEP TIGHTLY CLOSED.  
 STORE IN A COOL DRY PLACE.  
 WASH THOROUGHLY AFTER HANDLING.  
 USE ONLY IN A CHEMICAL FUME HOOD.  
 SAFETY SHOWER AND EYE BATH.  
 MECHANICAL EXHAUST REQUIRED.

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

APPEARANCE AND ODOR

SOLID.

PHYSICAL PROPERTIES

SPECIFIC GRAVITY: 1.882  
 VAPOR DENSITY: 6.8 G/L  
 SWISS POISON CLASS: 3

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

STABILITY

STABLE.

INCOMPATIBILITIES

OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE

NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

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

ACUTE EFFECTS

CHRONIC COPPER POISONING IS TYPIFIED BY HEPATIC CIRRHOSIS, BRAIN DAMAGE AND DEMYELINATION, KIDNEY DEFECTS, AND COPPER DEPOSITION IN THE CORNEA AS EXEMPLIFIED BY HUMANS WITH WILSON'S DISEASE. IT HAS ALSO BEEN REPORTED THAT COPPER POISONING HAS LEAD TO HEMOLYTIC ANEMIA AND ACCELERATES ARTERIOSCLEROSIS.  
 SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.

EXPOSURE CAN CAUSE:

GASTROINTESTINAL DISTURBANCES

BLOOD EFFECTS

DAMAGE TO THE LIVER

DAMAGE TO THE LUNGS

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.

HARMFUL IF SWALLOWED.

CHRONIC EFFECTS

TARGET ORGAN(S):

LIVER

LUNGS

RTECS #: AG3500000

ACETIC ACID, COPPER(2+) SALT, MONOHYDRATE

TOXICITY DATA

ORL-RAT LD50:710 MG/KG

AIHAAP 30,470,1969

TARGET ORGAN DATA

BEHAVIORAL (SOMNOLENCE)
GASTROINTESTINAL (CHANGES IN STRUCTURE OR FUNCTION OF SALIVARY GLANDS)
GASTROINTESTINAL (NAUSEA OR VOMITING)
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 - - - - -
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
THIS MATERIAL.
THE MATERIAL SHOULD BE DISSOLVED IN 1) WATER; 2) ACID SOLUTION OR 3)
OXIDIZED TO A WATER-SOLUBLE STATE. PRECIPITATE THE MATERIAL AS THE
SULFIDE, ADJUSTING THE PH OF THE SOLUTION TO 7 TO COMPLETE PRE-
CIPITATION. FILTER THE INSOLUBLES AND DISPOSE OF THEM IN A HAZARDOUS-
WASTE SITE. DESTROY ANY EXCESS SULFIDE WITH SODIUM HYPOCHLORITE.
NEUTRALIZE THE SOLUTION BEFORE FLUSHING DOWN THE DRAIN.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -
EUROPEAN INFORMATION

CAUTION: SUBSTANCE NOT YET FULLY TESTED.
HARMFUL
R 22
HARMFUL IF SWALLOWED.
R 36/37/38
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
S 36/37/39
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
OEL-ARAB REPUBLIC OF EGYPT: TWA 0.1 MG(CU)/M3 (FUME), JAN1993
OEL-AUSTRALIA: TWA 0.2 MG(CU)/M3 (FUME), JAN1993
OEL-AUSTRALIA: TWA 1 MG(CU)/M3 (DUST), JAN1993
OEL-BELGIUM: TWA 0.2 MG(CU)/M3 (FUME), JAN1993
OEL-BELGIUM: TWA 1 MG(CU)/M3 (DUST), JAN1993
OEL-FINLAND: TWA 0.2 MG(CU)/M3 (FUME), JAN1993
OEL-FINLAND: TWA 1 MG(CU)/M3, JAN1993
OEL-FRANCE: VME 0.2 MG(CU)/M3 (FUME), JAN1993
OEL-FRANCE: VME 1 MG(CU)/M3, STEL 2 MG(CU)/M3 (DUST), JAN1993
OEL-GERMANY: MAK 0.1 MG(CU)/M3 (FUME), JAN1999
OEL-GERMANY: MAK 1 MG(CU)/M3 (DUST), JAN1999
OEL-HUNGARY: TWA 0.2 MG(CU)/M3, STEL 0.4 MG(CU)/M3 (DUST), JAN1993
OEL-INDIA: TWA 0.2 MG(CU)/M3 (FUME), JAN1993
OEL-THE NETHERLANDS: MAC-TGG 02 MG(CU)/M3 (FUME), JAN1999
OEL-THE NETHERLANDS: MAC-TGG 1 MG(CU)/M3 (DUST), JAN1999
OEL-THE PHILIPPINES: TWA 1.0 MG(CU)/M3 (FUME), JAN1993
OEL-RUSSIA: STEL 0.5 PPM (1 MG(CU)/M3) (DUST), JAN1993
OEL-SWEDEN: NGV 0.2 MG(CU)/M3 (RESP. DUST), JAN1999
OEL-SWEDEN: NGV 1 MG(CU)/M3 (TOTAL DUST), JAN1999
OEL-SWITZERLAND: MAK-W 1 MG(CU)/M3, STEL 1 MG(CU)/M3, JAN1999
OEL-THAILAND: TWA 0.1 MG(CU)/M3 (FUME), JAN1993
OEL-THAILAND: TWA 1 MG(CU)/M3, JAN1993
OEL-

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS -  
COPPER COMPOUNDS.

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. SIGMA, ALDRICH,  
FLUKA 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.

COPYRIGHT 2001 SIGMA-ALDRICH CO.

LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY