

LTS (CHEMICAL) INC.
MATERIAL SAFETY DATA SHEET
COPPER BORON

GENERAL

MANUFACTURER/SUPPLIER: LTS (CHEMICAL) INC.
COMPANY'S STREET: 100 RED SCHOOLHOUSE RD.
COMPANY'S CITY: CHESTNUT RIDGE
COMPANY'S STATE: NEW YORK
COMPANY'S ZIP CODE: 10977
COMPANY'S EMERGENCY TEL. #: (877) 266-3785
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DATE MSDS PREPARED: 02/03/00
DATE MSDS REVISED: 05/03/00

1. PRODUCT IDENTIFICATION

PRODUCT NAME: COPPER BORON ALLOY
SYNONYM: METAL ALLOY
FORMULA: CuB
CAS #: 7440-50-8 (Cu)
CAS#: 7440-42-8 (B)
MOLECULAR WEIGHT: N/E

2. PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT 760 mm Hg: N/A
MELTING POINT: N/A
SPECIFIC GRAVITY: N/A
DENSITY: N/A
VAPOR DENSITY: N/A
VAPOR PRESSURE (mm hg):: N/A
% VOLATILES: N/A
SOLUBILITY IN H₂O: INSOLUBLE
APPEARANCE AND ODOR: REDDISH METALLIC INGOT, STRIPS, GRANULES, PCS, CHUNKS, SPUTTERING TARGETS. NO ODOR

3. HAZARD IDENTIFICATION

HAZARDOUS COMPONENTS %
COPPER: 99.5%
BORON: .5%

OSHA/PEL: N/A
ACGIH/TLV N/A

HMIS RATINGS (SOLID):
HEALTH: N/A
FLAMMABILITY: N/A
REACTIVITY: N/A

4. FIRE FIGHTING MEASURES

FLASH POINT: N/A

AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS:
UPPER: N/A
LOWER: N/A

FLAMMABILITY: NON-FLAMMABLE SOLID

EXTINGUISHING
MEDIA (POWDER):

PRODUCT IS NOT FLAMMABLE. USE SUITABLE EXTINGUISHING
MEDIA FOR SURROUNDING MATERIALS AND TYPE OF FIRE.

SPECIAL FIRE FIGHTING
PROCEDURES:

FIREFIGHTERS MUST WEAR FULL FACE, SELF-CONTAINED
BREATHING APPARATUS WITH FULL PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND
EXPLOSION HAZARDS:

DUST MAY FORM EXPLOSIVE MIXTURE WITH AIR. FIRE MAY
RELEASE TOXIC METAL OXIDE FUME

5. HEALTH HAZARD INFORMATION

EFFECTS OF EXPOSURE:

TO THE BEST OF OUR KNOWLEDGE THE ACUTE AND CHRONIC
TOXICITY OF COPPER BORN IS NOT FULLY KNOWN.
COMPOUND MAY BE IRRITATING TO THE SKIN, EYES AND
REPIRATORY TRACT. THEY MAY CAUSE METAL FUME FEVER,
HEMOLYSIS OF THE RED BLOOD CELLS AND INJURY TO THE LIVER,
LUNGS, KIDNEYS AND PANCREAS. INGESTION MAY ALSO CAUSE
VOMITING, GASTRIC PAIN, DIZZINESS, ANEMIA, CRAMPS,
CONVULSIONS, SHOCK, COMA AND DEATH. COPPER SOLUTIONS
MAY CAUSE SENSITIZATION REACTIONS.

ACUTE EFFECTS:

INHALATION:

MAY CAUSE SNEEZING, IRRITATION, NAUSEA, WEAKNESS, FEVER
AND BORON POISONING.

INGESTION:

MAY CAUSE IRRITATION, VOMITING, DIARRHEA AND BORON
POISONING.

SKIN:

MAY CAUSE IRRITATION AND DERMATITIS.

EYE:

MAY CAUSE IRRITATION.

CHRONIC AFFECTS:

PROLONGED EXPOSURE MAY CAUSE DISCOLOR SKIN AND HAIR,
DEMATITIS, IRRITATION OF MUCUS MEMBRANE. INGESTION MAY
CAUSE LIVER, CNS AND KIDNEY DAMAGE.

ROUTES OF EXPOSURE:

INHALATION, INGESTION, SKIN, EYE.

TARGET ORGAN:

RESPIRATORY SYSTEM, CNS, SKIN, LIVER, KIDNEYS

MEDICAL CONDITIONS GENERALLY
AGGRAVATED BY EXPOSURE:

PRE-EXISTING RESPIRATORY DISORDERS, WILSON'S DISEASE

CARCINOGENITY:

NTP:	NO
IARC:	NO
OSHA:	NO

6. STABILITY

STABILITY:

STABLE

CONDITION TO AVOID:

HEAT, DUSTING

INCOMPATIBILITY

(MATERIAL TO AVOID): STRONG ACIDS, BROMATES, STRONG BASES, ACETYLENE, ACETALDEHYDE, MAGNESIUM, CHLORATES AND IODATES.

HAZARDOUS DECOMPOSITION PRODUCTS: OXIDES, FUMES.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

7. EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: REMOVE TO FRESH AIR, KEEP WARM AND QUIET, GIVE OXYGEN IF BREATHING IS DIFFICULT. SEEK IMMEDIATE MEDICAL ADVICE

INGESTION: SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN: WASH AFFECTED SKIN WITH SOAP AND WATER FOR 15 MINUTES. SEEK MEDICAL ADVICE.

EYE: FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CONSULT A DOCTOR.

8. HANDLING AND STORAGE

HANDLING AND STORAGE STORE IN A COOL, DRY PLACE AVOIDING CONTACT WITH INCOMPATIBLE MATERIALS. WASH THOROUGHLY AFTER HANDLING.

OTHER PRECAUTIONS: NORMAL LAB COAT.

9. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: WEAR PROTECTIVE CLOTHING, GOGGLES AND A NIOSH APPROVED RESPIRATOR. SPRINKLE MODERATELY WITH DAMP SAND AND COLLECT FOR DISPOSAL AVOIDING DUST CLOUDS AS MUCH AS POSSIBLE.

RESPIRATORY PROTECTION (SPECIFY TYPE): USE SUPPLIED AIR RESPIRATORY PROTECTION IN CONFINED OR ENCLOSED SPACES IF NEEDED.

VENTILATION: LOCAL EXHAUST; MINIMUM FACE VELOCITY OF 60 FPM

PROTECTIVE GLOVES: CHEMICAL RESISTANT GLOVES.

EYE PROTECTION: SAFETY GLASSES

OTHER PROTECTIVE EQUIPMENT: APRON

WASTE DISPOSAL METHOD: IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

10. TOXICITY DATA

LD50/LC50 N/A.

SARA TITLE III HAZARD CATEGORIES:

ACUTE: YES
CHRONIC: YES

FLAMMABILITY: NO
PRESSURE: NO
REACTIVITY: NO

EXTREMELY HAZARDOUS
SUBSTANCE: NO
CERCLA HAZARDOUS SUBSTANCE: YES (CONTAINS CU RQ=5000 LBS)
SARA 313 TOXIC CHEMICALS: YES
TSCA INVENTORY: YES

11. TRANSPORTATION DATA

NOT REGULATED

UN# N/A
HAZARD CLASS: N/A
ADR//RID CLASS: NOT RESTRICTED
IMDG CLASS: NOT RESTRICTED
AIR TRAN. ICAO/IATA CLASS: NOT RESTRICTED
MARITIME TRAN. IMDG CLASS: NOT RESTRICTED

12. OTHER INFORMATION

THIS SAFETY DATA SHEET SHOULD BE USED IN CONJUNCTION WITH TECHNICAL SHEETS. IT DOES NOT REPLACE THEM. THE INFORMATION GIVEN IS BASED ON OUR KNOWLEDGE OF THIS PRODUCT, AT THE TIME OF PUBLICATION. IT IS GIVEN IN GOOD FAITH. THE ATTENTION OF THE USER IS DRAWN TO THE POSSIBLE RISKS INCURRED BY USING THE PRODUCT FOR ANY OTHER PURPOSE OTHER THAN THAT FOR WHICH IT WAS INTENDED. THIS DOES NOT IN ANY WAY EXCUSE THE USER FROM KNOWING AND APPLYING ALL THE REGULATIONS GOVERNING HIS ACTIVITY. IT IS THE SOLE RESPONSIBILITY OF THE USER TO TAKE ALL PRECAUTIONS REQUIRED IN HANDLING THE PRODUCT. THE AIM OF THE MANDATORY REGULATIONS MENTIONED IS TO HELP THE USER TO FULFILL HIS OBLIGATIONS REGARDING THE USE OF HAZARDOUS PRODUCTS.