

LUCAS-MILHAUPT INC
SIL-

-- SILVER-COPPER-PHOSPHORUS BRAZING ALLOYS,

=====
MSDS Safety Information
=====

MSDS Date: 01/19/1998
MSDS Num: CKPGG
Product ID: SILVER-COPPER-PHOSPHORUS BRAZING ALLOYS, SIL-FOS 10 (71-100)
MFN: 01
Responsible Party
Cage: 91874
Name: LUCAS-MILHAUPT INC
Address: 5656 SOUTH PENNSYLVANIA AVENUE
City: CUDAHY WI 53110
Info Phone Number: 414-769-6000
Emergency Phone Number: 800-424-9300 (CHEMTREC)
Chemtrec IND/Phone: (800)424-9300
Review Ind: Y
Published: Y

=====
Contractor Summary
=====

Cage: 91874
Name: LUCAS-MILHAUPT INC
Address: 5656 SOUTH PENNSYLVANIA AVENUE
City: CUDAHY WI 53110
Phone: 414-769-6000

=====
Ingredients
=====

Cas: 7440-50-8
RTECS #: GL5325000
Name: COPPER
% low Wt: 27.
% high Wt: 92.6
Other REC Limits: N/K (FP N)
OSHA PEL: 1 MG/M3
OSHA STEL: N/K (FP N)
ACGIH TLV: 1 MG/M3
ACGIH STEL: N/K (FP N)
EPA Rpt Qty: 5000 LBS
DOT Rpt Qty: 5000 LBS

Cas: 7723-14-0
RTECS #: TH3495000
Name: PHOSPHORUS
% low Wt: .01
% high Wt: 7.25
Other REC Limits: N/K (FP N)
OSHA PEL: 0.1 MG/M3
OSHA STEL: N/K (FP N)
ACGIH TLV: 0.1 MG/M3;0.02 PPM
ACGIH STEL: N/K (FP N)
EPA Rpt Qty: 1 LB
DOT Rpt Qty: 1 LB

Cas: 7440-22-4

RTECS #: VW3500000
Name: SILVER
% low Wt: .9
% high Wt: 73.
Other REC Limits: N/K (FP N)
OSHA PEL: 0.01 MG/M3
OSHA STEL: N/K (FP N)
ACGIH TLV: 0.1 MG/M3
ACGIH STEL: N/K (FP N)
EPA Rpt Qty: 1 LB
DOT Rpt Qty: 1 LB

=====
Health Hazards Data
=====

Route Of Entry Inds - Inhalation: YES
Skin: YES
Ingestion: YES
Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO

Effects of Exposure: ACUTE: INHAL: INHAL OF COMPONENTS OF THESE PRODS IS NOT KNOWN TO PRESENT A SIGNIFICANT RISK TO HLTH WHEN USED ACCORDING TO INSTRUCTIONS & W/APPROP PROT MEASURES. INHAL OF COMPONENT ELEMENTS HAS BEEN REPORTED TO CAUSE ONE/MORE OF THE FOLLOWI NG SYMPS & EFTS UPON EXCESS HIGH/PRLNG EXPOS: COPPER: ACUTE EXPOS MAY CAUSE RESP TRACT IRRIT, FEVER, MUSCLE ACHE, CHILLS, COUGH, WEAK, & METALLIC TASTE. PHOSPHORUS: THE RED FORM OF PHOSPHORUS IS STABLE & RELATIVELY NON-TOX AT ROOM TEMP. WHE N HEATED IN PRESENCE OF AIR, IT IS CONVERTED TO PHOSPHORUS PENTOXIDE, WHICH IS CORR & IRRITATING TO EYES, NOSE, THROAT, & MUC MEMBS. (EFTS OF OVEREXP)

Explanation Of Carcinogenicity: NONE OF THE COMPONENTS OF THESE PRODUCTS ARE CLASSIFIED AS POTENTIAL OR DEMONSTRATED HUMAN CARCINOGENS BY IARC, NTP, OR OSHA.

Signs And Symptions Of Overexposure: HLTH HAZ: SKIN: CONT W/THESE PRODS IN FINELY-DIVIDED FORMS MAY CAUSE ARGYRIA, IRRIT, DISCOLORATION, &/OR CONT DERM. EYES: CONT W/THESE PRODS IN FINELY-DIVIDED FORMS MAY CAUSE IRRIT, ARGYRIA, CONJ, &/OR ULCERATION OF CORNEA. INGEST: INGEST O F THESE PRODS IN FINELY-DIVIDED FORMS MAY CAUSE NAUS, VOMIT, & GI IRRIT. CHRONIC: INHAL: COPPER: EXPOS MAY DMG LIVER, KIDNEY, SPLEEN, PANCREAS, & BRAIN. SILVER: CHRONIC EXPOS MAY PRDCE ARGYRIA, A PERM BLUE-GRAY DISCOLORATION OF SKIN, EYES, MUC MEMBS, & REP TRACT. INGEST: LONG-TERM CHRONIC INGEST MAY DMG LIVER, KIDNEYS, & GI SYS.

Medical Cond Aggravated By Exposure: PRE-EXISTING PULM DISEASES (BRONCH, ASTHMA) MAY BE AGGRAVATED BY INHAL EXPOS, PARTICULARLY AS FUME. CHRONIC EXPOS BY INHAL &/OR INGEST MAY AGGRAVATE PRE-EXISTING DISEASES OF LIVER, KIDNEYS, & GI SYS.

First Aid: INHALATION: IF SIGNS AND SYMPTOMS OF TOXICITY ARE OBSERVED, REMOVE SUBJECT FROM AREA, ADMINISTER OXYGEN, AND SEEK MEDICAL ATTENTION. KEEP THE SUBJECT WARM AND AT REST. PERFORM ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. SKIN: REMOVE CO NTAMINATED CLOTHING. WASH AFFECTED AREA WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ASSISTANCE IF NECESSARY. EYES: FLUSH WITH WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ASSISTANCE IF NECESSARY. INGESTION: IF SUBJEC T IS CONSCIOUS, INDUCE VOMITING. IF UNCONSCIOUS OR CONVULSIVE, SEEK IMMEDIATE MEDICAL ASSISTANCE.

=====
Handling and Disposal
=====

Spill Release Procedures: IF A FINELY-DIVIDED FORM OF PRODUCT IS SPILLED, CLEAN UP SPILLAGE SO AS TO MINIMIZE DISPERSION OF DUST. WET SWEEPING OR VACUUMING USING HEPA FILTRATION ARE RECOMMENDED.

Waste Disposal Methods: CONSULT THE MANUFACTURER FOR DISPOSITION OF UNUSED OR UNUSABLE PRODUCT. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS (FP N).

Handling And Storage Precautions: DO NOT STORE IN PROXIMITY TO INCOMPATIBLE MATERIALS.

=====
Fire and Explosion Hazard Information
=====

Extinguishing Media: USE DRY CHEMICAL. DO NOT USE WATER.

Fire Fighting Procedures: WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE EQUIPMENT (FP N).

Unusual Fire/Explosion Hazard: IN FINELY-DIVIDED FORM, THESE PRODUCTS MAY IGNITE WHEN EXPOSED TO FLAME OR BY REACTION WITH INCOMPATIBLE MATERIALS. IF PRESENT IN A FIRE OR EXPLOSION, THEY MAY EMIT FUMES OF THE CONSTITUENT METALS OR METAL OXIDES AND PHOSPHORUS PENTOXIDE.

=====
Control Measures
=====

Respiratory Protection: IF EXPOSURE LEVEL EXCEEDS AN OSHA PEL/OTHER APPLICABLE STANDARD, USE NIOSH-APPROVED RESPIRATOR HAVING CONFIGURATION (CLASS, TYPE OF FACEPIECE, FILTER MEDIA, ASSIGNED PROTECTION FACTOR, ETC) APPROPRIATE TO CONCENTRATION OF CONTAMINANT(S) GENERATED. FOR GUIDANCE ON SELECTION & USE OF RESPIRATORY PROTECTION, CONSULT ANSI Z88.2 (ANSI, NEW YORK, NY 10036 USA).

Ventilation: USE APPROP VENT (E.G., DILUTION, LOC EXHST) ADEQ TO MAINTAIN CONCS OF ALL COMPONENTS & THEIR DECOMP BYPRODS TO W/IN THEIR RESPECTIVE OSHA PEL/OTHER APPLIC STDS.

Protective Gloves: WEAR APPROPRIATE PROTECTIVE GLOVES. WEAR IMPERVIOUS GLOVES (FP N).

Eye Protection: ANSI APPROVED CHEMICAL WORKERS GOGGLES (FP N).

Other Protective Equipment: ANSI APPRVD EMER EYEWASH & DELUGE SHOWER (FP N). WEAR APPROP PROT CLTHG TO PVNT SKIN INJURIES FROM HAZS OF BRAZING &/OR FOR PRLNG/RPTD CONT W/FINELY-DIVIDED FORMS OF PROD. AVOID FLAMM FABRICS.

Work Hygienic Practices: TO MINIMIZE THE POSSIBILITY OF INGESTION, WASH HANDS AND FACE BEFORE EATING, DRINKING, APPLYING COSMETICS, OR USING TOBACCO.

Supplemental Safety and Health: APPEARANCE/ODOR: TAPE, GRAIN, OR PREFORMED SHAPES. MATERIALS TO AVOID: FERRIC CARBONYL, SELENINYL BROMIDE. CHEMICAL FORMULA: ALLOYS OF SILVER, COPPER, AND PHOSPHORUS.

=====
Physical/Chemical Properties
=====

Melt/Freeze Pt: =643.3C, #####F

Spec Gravity: 7.86 - 8.44

Solubility in Water: INSOLUBLE

Appearance and Odor: ODORLESS LIGHT-COPPER METALS IN FORM OF WIRE, ROD, STRIP, POWDER, (SUP DAT)

=====
Reactivity Data
=====

Stability Indicator: YES SULFIDE, (SUP DAT)

Stability Condition To Avoid: STABLE AT ROOM TEMPERATURE. SILVER AND COPPER CAN FORM UNSTABLE ACETYLIDES UPON CONTACT WITH ACETYLENE GAS.

Materials To Avoid: AMMONIA, HNO*3, AZIDES, ETHANOL, ETHYLENE IMINE, MG, CHLORATES, BROMATES & IODATES, INORG & ORG PEROXIDES, PEROXYFORMIC ACID,

NITROBENZENE, HALOGENS, PERMONOSULFONIC ACID, SEOCL, SEOF, SEF*4, HYDRAZINE
MONONITRATE, CARBON D

Hazardous Decomposition Products: HEATING TO ELEVATED TEMPERATURES MAY
LIBERATE METAL/METAL OXIDE FUME AND PHOSPHORUS PENTOXIDE.

Hazardous Polymerization Indicator: NO

=====
Toxicological Information
=====

=====
MSDS Transport Information
=====

Transport Information: HAZARD CLASS: SHIPMENT NOT CONTROLLED BY
USDOT/ICAO/IMO REGULATIONS.

=====
Regulatory Information
=====

Sara Title III Information: HAZARD CLASSES: ACUTE HEALTH HAZARD, CHRONIC
HEALTH HAZARD. SECTION 313 SUPPLIER NOTIFICATION: THIS PRODUCT CONTAINS THE
FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION
313 OF THE EMERGENCY PLANNING & COMMUNITY RI GHT-TO-KNOW ACT (EPCRA) OF
1986 AND OF 40 CFR 372: COPPER, CAS # 7440-50-8, 27-92.6 PERCENT OF
MIXTURE;PHOSPHORUS, CAS # 7723-14-0, 0.01-7.25 PERCENT OF MIXTURE; SILVER,
CAS #7440-22-4, 0.9-73 PERCENT OF MIXTURE. THIS INFORMATION MUST BE
INCLUDED ON ALL MSDS THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

=====
HAZCOM Label
=====

Product ID: SILVER-COPPER-PHOSPHORUS BRAZING ALLOYS, SIL-FOS 10 (71-100)

Cage: 91874

Company Name: LUCAS-MILHAUPT INC

Street: 5656 SOUTH PENNSYLVANIA AVENUE

City: CUDAHY WI

Zipcode: 53110

Health Emergency Phone: 800-424-9300 (CHEMTREC)

Label Required IND: Y

Date Of Label Review: 06/21/2000

Status Code: A

Origination Code: F

Chronic Hazard IND: Y

Eye Protection IND: YES

Skin Protection IND: YES

Signal Word: CAUTION

Respiratory Protection IND: YES

Health Hazard: Slight

Contact Hazard: Slight

Fire Hazard: None

Reactivity Hazard: None

Hazard And Precautions: ACUTE: INHAL: INHAL OF COMPONENT ELEMENTS HAS BEEN
REPORTED TO CAUSE ONE/MORE OF THE FOLLOWING SYMPS & EFTS UPON EXCESS
HIGH/PRLNG EXPOS: RESP TRACT IRRIT, FEVER, MUSCLE ACHE, CHILLS, COUGH,
WEAK,& METALLIC TASTE. IRRITATING TO EYES, NOSE, THROAT. & MUC MEMBS,
SKIN: MAY CAUSE ARGYRIA, IRRIT, DISCOLORATION &/OR CONTACT DERM. EYES:
MAY CAUSE IRRIT, ARGYRIA, CONJUNCTIVITIS &/OR ULCERATION OF CORNEA.
INGEST: MAY CAUSE NAUS, VOMIT & GI IRRIT. CHRONIC: INHAL OVEREXP MAY
DAMAGE LIVE R, KIDNEY, SPLEEN, PANCREAS & BRAIN. INGEST OVEREXP MAY
DAMAGE LIVER, KIDNEYS & GI SYSTEM.

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever expressly or implied warrants, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.