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MATERIAL SAFETY DATA SHEET

COMMON NAME: COPPER Revised: March 2005

SECTION I: IDENTIFICATION

MANUFACTURER/AND OR DISTRIBUTED BY: ELKHART PRODUCTS CORPORATION

CHEMICAL NAME & SYNONYMS: COPPER – CU CAS #7440-50-8

UNS-C12200 - DEOXIDIZED HIGH PHOSPHORUS COPPER

TRADE NAME & SYNONYMS: WROT, WROUGHT COPPER FITTINGS

CHEMICAL FAMILY: COPPER

SECTION II: INGREDIENTS AND IDENTITY INFORMATION

<u>INGREDIENTS</u> <u>PERCENT</u> <u>OCCUPATIONAL EXPOSURE LIMITS</u>

 COPPER
 99.9
 DUST
 1.0 mg/m3

 PHOSPHORUS
 .004/015
 FUME
 0.1 mg/m3

8 HR TWA

SECTION III: PHYSICAL DATA

PHYSICAL FORM: SOLID DENSITY: N/A **BOILING TEMPERATURE:** N/A WATER SOLUBILITY: N/A MELT TEMPERATURE: 1982 DEGREES F N/A :Ha VAPOR PRESSURE: COLOR: RED N/A ODOR: **EVAPORATION RATE:** N/A N/A

SPECIFIC GRAVITY: N/A

SECTION IV: FIRE AND EXPLOSION DATA

FLASHPOINT: N/A AUTO-IGNITION TEMP: N/A

FLAMMABILITY LIMITS IN AIR: N/A LOWER: UPPER:

IN THE SOLID FORM, THERE ARE NO FIRE OR EXPLOSION HAZARDS WITH THIS ALLOY. FINE CHIPS OR DUST MAY IGNITE AND SHOULD BE STORED IN A WELL-VENTILATED AREA. IN CASE OF FIRE, USE EXTINGUISHING AGENTS APPROPRIATE FOR THE SURROUNDINGS OR MATERIALS. DRY CHEMICALS OR SAND SHOULD BE USED TO EXTINGUISH FIRES. FIRE FIGHTERS SHOULD WEAR FULL PROTECTIVE CLOTHING, AND WHERE CONDITIONS WARRANT, NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

SEE SECTION VI AND VII

SECTION V: REACTIVITY DATA

COPPER AND COPPER ALLOYS ARE STABLE UNDER NORMAL CONDITIONS OF TRANSPORT, USE AND STORAGE.

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SECTION VI: HEALTH HAZARD DATA

TLV: SEE SECTION II

PRIMARY ROUTES OF ENTRY: INHALATION OF DUST OR FUMES

UNDER NORMAL HANDLING AND USE, EXPOSURE TO THE SOLID FORM OF COPPER OR COPPER ALLOYS PRESENTS FEW HEALTH HAZARDS. THERMAL CUTTING, MELTING, MACHINING/GRINDING MAY PRODUCE FUMES OR DUST CONTAINING THE COMPONENT ELEMENTS, AND BREATHING THESE FUMES OR DUST MAY PRESENT POTENTIALLY SIGNIFICANT HEALTH HAZARDS. THE EXPOSURE LEVELS IN SECTION II ARE RELEVANT TO FUMES AND DUST. FUMES OF COPPER MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS, AND COPPER MAY CAUSE SKIN AND HAIR DISCOLORATION.

SECTION VII: SPILL, LEAK & DISPOSAL PROCEDURES

NO SPECIAL PRECAUTIONS ARE NECESSARY FOR SPILLS OF BULK MATERIAL. IF LARGE QUANTITIES OF DUST ARE SPILLED, REMOVE BY VACUUMING OR WET-SWEEPING TO PREVENT HEAVY CONCENTRATIONS OF AIRBORNE DUST. CLEANUP PERSONNEL SHOULD WEAR RESPIRATORS AND PROTECTIVE CLOTHING. SCRAP METAL CAN BE RECLAIMED FOR REUSE. FOLLOW FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING DISPOSAL.

SECTION VIII: SPECIAL PROTECTION INFORMATION

USE GENERAL AND LOCAL EXHAUST VENTILATION TO KEEP AIRBORNE CONCENTRATIONS OF DUST AND FUMES BELOW THE TLV. WHEN REQUIRED, EMPLOYEES SHOULD WEAR MSHA- OR NIOSH- APPROVED RESPIRATORS FOR PROTECTION AGAINST AIRBORNE DUST OR FUMES. APPROVED SAFETY GLASSES AND/OR GOGGLES SHOULD BE WORN DURING ANY MACHINING, GRINDING, CUTTING, OR OTHER OPERATIONS FROM WHICH AIRBORNE PARTICLES MAYBE EMITTED. FOOD OR DRINK SHOULD NOT BE CONSUMED IN THE WORK AREA.

SECTION IX: SPECIAL PRECAUTIONS & COMMENTS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

KEEP OUT OF REACH OF CHILDREN

USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM.

AVOID BREATHING DUST OR FUMES.

DO NOT TAKE INTERNALLY.

STORE DUST AWAY FROM SOURCE OF IGNITION.

PRECLUDE FROM EXPOSURE TO FUME AND DUST THOSE INDIVIDUALS WITH PULMONARY AND CARDIAC DISEASES.

DISCLAIMER OF LIABILITY:

INFORMATION HEREIN IS GIVEN IN GOOD FAITH AS AUTHORITATIVE AND VALID; HOWEVER, NO WARRANTY, EXPRESSED OR IMPLIED, CAN BE MADE.