

COPPER & BRASS SALES -- C194 HIGH COPPER ALLOY  
MATERIAL SAFETY DATA SHEET  
Part Number/Trade Name: C194 HIGH COPPER ALLOY

=====  
General Information  
=====

Item Name: COPPER/COPPER ALLOYS  
Company's Name: POONGSAN CORPORATION  
Company's Street: 611 DAEJUNG-RI ONSAN-UP ULJU-KUN  
Company's City: ULSAN  
Company's Country: SOUTH KOREA  
Company's Zip Code: 689-890  
Company's Emerg Ph #: 81-52-231-9165  
Company's Info Ph #: 81-52-231-9400

=====  
Ingredients/Identity Information  
=====

Proprietary: NO  
Ingredient: COPPER (DUST & MIST)  
Ingredient Sequence Number: 01  
Percent: 97.4  
NIOSH (RTECS) Number: GL5325000  
CAS Number: 7440-50-8  
OSHA PEL: 0.1 MG(CU)/M3 (FUME)  
ACGIH TLV: 0.2 MG/M3 (FUME)  
Other Recommended Limit: 1 MG(CU)/M3 (DUST)

-----  
Proprietary: NO  
Ingredient: ZINC OXIDE  
Ingredient Sequence Number: 02  
Percent: 0.13  
NIOSH (RTECS) Number: ZH4810000  
CAS Number: 1314-13-2  
OSHA PEL: 5 MG/CUM  
ACGIH TLV: 5 MG/CUM FUME  
-----

-----  
Proprietary: NO  
Ingredient: PHOSPHORUS (YELLOW & WHITE)  
Ingredient Sequence Number: 03  
Percent: 0.04  
NIOSH (RTECS) Number: TH3500000  
CAS Number: 7723-14-0  
OSHA PEL: 0.1 MG/CUM  
ACGIH TLV: 0.1 MG/CUM  
Other Recommended Limit: 100 UG/CUM  
-----

Proprietary: NO  
Ingredient: IRON  
Ingredient Sequence Number: 04  
Percent: 2.4  
NIOSH (RTECS) Number: TH3500000  
CAS Number: 7439-89-6  
OSHA PEL: 10 MG/CUM  
ACGIH TLV: 5 MG/CUM  
Other Recommended Limit: 1 MG/CUM

=====  
Physical/Chemical Characteristics  
=====

Appearance And Odor: RED COLOR SOLID W/NO ODOR.  
Melting Point: 1088-1990F  
Specific Gravity: 8.91  
Solubility In Water: INSOLUBLE  
=====

Fire and Explosion Hazard Data  
=====

Extinguishing Media: USE SPECIAL MIXTURES OF DRY CHEMICAL/SAND.  
Special Fire Fighting Proc: WEAR NIOSH/MSHA SCBA & PROTECTIVE CLOTHING.  
Unusual Fire And Expl Hazrds: SOLID MASSIVE FORM ISN'T COMBUSTIBLE. MOLTEN METAL MAY REACT VIOLENTLY W/WATER.

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

Stability: YES

Cond To Avoid (Stability): WATER, HEAT, FLAMES, CHEMICAL REACTIONS.

Materials To Avoid: OXIDIZERS, ACIDS, BASES

Hazardous Decomp Products: METAL FUME.

Hazardous Poly Occur: NO  
=====

Health Hazard Data  
=====

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: COPPER-INHALATION: FUMES MAY CAUSE METAL FUME FEVER. SKIN: DERMATITIS, KERATINIZATION OF THE HANDS & THE SOLES OF THE FEET. COPPER DUST & FUME CAUSES IRRITATION OF THE UPPER RESPIRATORY TRACT.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: NONE

Signs/Symptoms Of Overexp: COPPER-FLU-LIKE SYMPTOMS, SKIN & HAIR DISCOLORATION, METALLIC TASTE IN THE MOUTH, NAUSEA.

Emergency/First Aid Proc: EYES: FLUSH W/RUNNING WATER. SKIN: VACUUM OFF EXCESS DUST. WASH W/SOAP & WATER. INHALATION: REMOVE TO FRESH AIR. OBTAIN MEDICAL ATTENTION IN ALL CASES.  
=====

Precautions for Safe Handling and Use  
=====

Steps If Matl Released/Spill: LARGE: REMOVE BY VACUUMING/WET SWEEPING TO PREVENT HEAVY CONCENTRATION OF AIRBORNE DUST. IF LIQUIDS CONTAINING SOLUBILIZED METAL ARE SPILLED EVACUATE AREA. ABSORB BY MEANS OF VERMICULITE, DRY SAND/SIMILAR MATERIAL. (SEE SUPP)

Waste Disposal Method: DISPOSE OF IAW/FEDERAL, STATE & LOCAL REGULATIONS.

Precautions-Handling/Storing: STORE AWAY FROM INCOMPATIBLE MATERIALS & KEEP DUST FROM IGNITION SOURCES.

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

Respiratory Protection: IF EXPOSURE ABOVE THE PEL/TLV, WEAR NIOSH/MSHA APPROVED RESPIRATOR.

Ventilation: LOCAL EXHAUST VENTILATION.

Protective Gloves: REQUIRED

Eye Protection: SAFETY GLASSES W/SIDE SHIELDS

Other Protective Equipment: FACE SHIELDS, SPECIALLY TINTED GLASS.

Suppl. Safety & Health Data: SPILLS CONT'D: CLEANUP PERSONNEL SHOULD WEAR RESPIRATORS & PROTECTIVE CLOTHING. VENTILATE AREA.

=====  
Transportation Data  
=====

=====  
Disposal Data  
=====