



MAGNOLIA METAL CORPORATION

MATERIAL SAFETY DATA SHEET

NO. 2 REV. NO. 7

Date Prepared January 1, 2001

I. PRODUCT IDENTIFICATION

This MSDS supplied for :

UNS Alloy	
<u>Designation</u>	<u>Trade Name</u>
C90300	Magnolia "AA" Hard or Navy "G"
C90500	Magnolia SAE 62
C89320	Magnolia Lead Free B-1 ® Bronze

Manufacturer: Magnolia Metal Corporation
R.R. 2 Box 13M Magnolia Park
Auburn, Nebraska 68305

Telephone: (402) 274-3152

FIRE HAZARD CLASS: HEALTH : 0 FIRE : 0 REACTIVITY : 0

THE 4TH DIAMOND:

ANSI: WARNING! FUMES OR DUST FROM THIS CASTING MAY CAUSE RESPIRATORY OR SKIN IRRITATION, LEAD INTOXICATION, ANEMIA OR METAL FUME FEVER.

II. PRODUCT INGREDIENTS

<u>Ingredient</u>	<u>CAS No.</u>	<u>Percent</u>	<u>TLV</u> <u>N/E</u>	<u>PEL</u> <u>N/E</u>
Bismuth	7440-69-9	<0.1-9.0		
Copper*	7440-50-8	65.0-94.0	0.2 mg.m as fume 1.0 mg.m as dust	0.1 mg.m as fume 1.0 mg.m as dust
Lead*	7439-92-1	<0.1-0.5	0.15 mg/cu.m	0.05 mg/cu.m
Tin	7440-31-5	4.0-11.5	2.0 mg/cu.m	2.0 mg/cu.m
Zinc**	7440-66-6	<0.25-5.0	5.0 mg/cu.m as oxide fume	5.0 mg/cu.m as oxide fume

Elements having a listed percentage greater than zero will be present in all grades. Those having a value of "0" may not be present in certain grades. "<" means that the casting may contain less than a given percentage.

* This constituent, a toxic chemical, makes this product subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Quantity threshold for these chemicals, below which reporting of releases is not required is 25,000 pounds. Chemicals marked "*" are reportable only if in the form of dust or fume.

OVERVIEW

There are no chemical hazards from these castings in solid form.

Machining, grinding, flame cutting or welding on the casting will put contaminants, primarily copper and tin, in the air.

Copper fumes and dusts irritate the nose and throat. If too much fume is inhaled, it will cause a sweet or metallic taste in the mouth. High concentrations of the fumes can also cause metal fume fever, which resembles the flu.

Inhaling excessive amounts of copper dust over a long period of time can cause anemia. The dust may also cause skin and eye irritation after short exposures.

Tin fumes or dust present no significant hazards. Other toxic metals in the alloy are present in small amounts that will not represent a hazard if copper dust and fume are adequately controlled.

Grinding on castings that have not been cleaned may generate significant amounts of dust containing free silica, which can cause silicosis.

Because of this potential hazard from metal dust and fumes, machining, grinding, welding operations, etc., should be done under local exhaust ventilation. If ventilation is not adequate, wear a NIOSH approved dust and fume respirator.

N/E : none established

N/A : not applicable

N/D : no data available

SECTION III - PHYSICAL DATA

Physical Description : Solid metal, yellow to red in color, no odor
Boiling Point : 4703 F (for copper)
Vapor Pressure : N/A
Vapor Density :N/A
Solubility In Water : not soluble
Specific Gravity : 8.94 (for copper)
Percent Volatile By Volume : None
Evaporation Rate : N/A

SECTION IV - FIRE AND EXPLOSION DATA

Castings will not burn or explode.

SECTION V - HEALTH HAZARD DATA

Eyes : Metal particles in eyes may cause irritation if not removed.

Skin : May cause skin irritation

Breathing : Breathing dust or fumes may cause nose and throat irritation. High levels of the fumes can result in a sweet or metallic taste in the mouth. Very high levels can cause metal fume fever, which resembles the flu. Breathing the dust can cause congestion in the nose and throat. Breathing the dust over a long period of time can also result in anemia. Breathing excessive amounts of silica dust for a long time can cause silicosis. Silicosis causes shortness of breath, reduced capacity to do work and weakens defenses against other lung diseases.

Swallowing : N/A

Noise : Grinding castings is noisy. The OSHA limit for noise averaged over 8 hours is 90 decibels (dBA), hearing conservation program required if exposure is over 85 dBA. If noise is at or above 90 dBA you should wear ear muffs or ear plugs.

FIRST AID

If In Eyes : Metal particles should be removed by trained individuals such as a nurse or physician.

If On Skin : Use a mild hand cream if irritation develops.

If Breathed : (Fumes from welding) Move to fresh air.

If Swallowed : N/A

SECTION VI - REACTIVITY DATA

Hazardous Polymerization : Will not occur.

Stability : Stable.

Incompatibility: Fine castings dust and finely divided bromates, chlorates or iodates form an explosive mixture. Acetylene or ethylene oxide can react with heated casting to form explosive acetylides. Casting may burn spontaneously in gaseous chlorine. Also not compatible with halogens, sulfur, cupric nitrate, sodium peroxide, potassium peroxide and acids.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:

If damaged, return castings to vendor or send to scrap reclaimer.

Collected dust from machining, welding, etc. may be classed as a "hazardous waste" depending on circumstances. Consult local authorities regarding disposal.

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

Respiratory Protection : Wear a NIOSH approved respirator for dusts or fume if concentrations exceed the TLV or PEL.

Ventilation : Provide general ventilation and/or local exhaust if necessary to maintain concentrations below the TLVs.

Protective Gloves : Work gloves advisable for handling castings.

Eye Protection : Safety glasses with side shields and/or face shields for particles (grinding). Welding goggles or helmet for welding.

Other Protective Equipment : Wear a protective apron and gauntlets if arc-air gouging or cutting or welding on castings. If noise is at or above 90 dBA you should wear ear muffs or ear plugs.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

Storage : No special precautions.

Information presented herein has been compiled from sources considered to be reliable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so.
