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**MATERIAL SAFETY DATA SHEET**

<b>PRODUCT IDENTITY: Brass Fittings - Domestic &amp; Imported</b>						
<b>SECTION I - PRODUCT INFORMATION</b>						
PRODUCT NAME:	Brass Fittings			MANUFACTURE'S NAME: Various		
CHEMICAL NAME	Brass Alloys; CDA 37700, CDA 36000, CDA 84400, 83600					
and SYNONYMS:	ASTM B62 AND ASTM B584			DISTRIBUTOR: Trenton Pipe Nipple Co		
PHYSICAL DESCRIPTION:	Shiny yellow-golden colored metallic solid, no odor and is not soluble					
<b>SECTION II - HAZARDOUS INGREDIENTS</b>						
ELEMENT	CAS NO.	ACGIH TLV (mg/m <sup>3</sup> )	OSHA PEL (mg/m <sup>3</sup> )	Melting PT F deg	Boiling PT F deg	Density
Copper	7440-50-8	1.0 dust 0.2 fume	1.0 dust 0.1 fume	1982	4678	8.94
Zinc	7440-66-6	5 respirable dust 10 total dust	5 respirable dust 15 total dust	787	1881	7.14
Lead	7439-92-1	0.15	0.05	621	3182	11.35
Tin	7440-31-5	2.0	2.0	450	5018	7.30
<b>SECTION III - PHYSICAL DATA</b>						
MELTING POINT: See section II				DENSITY: See section II		
BOILING POINT: See section II				VAPOR PRESSURE: Not Applicable		
SOLUBILITY: Insoluble				VAPOR DENSITY: Not Applicable		
<b>SECTION IV - FIRE &amp; EXPLOSION HAZARDS</b>						
FLAMMABILITY:	NO			<b>SPECIAL FIRE FIGHTING PROCEDURES:</b> Solid, massive form is not combustible. Fire and explosion hazards are moderate when material is in the form of dust and exposed to heat, flames, chemical reaction or contact with powerful oxidizers. Use special mixtures of dry chemicals or sand.		
EXPLOSIVITY:	NO					
Lower %	N.A.					
Upper %	N.A.					
FLASHPOINT:	N.A.					
Means of Extinguishing:	None, not flammable.					

## MATERIAL SAFETY DATA SHEET (continuation):

### SECTION V - TOXICOLOGY & FIRST AID

### Brass Fittings - Domestic & Imported

**Copper:** Melting, grinding, cutting of copper may produce fumes or dust exposure and breathing these fumes or dust may present potentially significant health hazards. Fumes of copper may cause metal fume fever with flu-like symptoms and skin and hair discoloration. While industrial dermatitis has not been reported, keratinization of the hands and the soles of the feet has been reported. Systemically as well, copper dust and fume cause irritation of the upper respiratory tract, metallic taste in the mouth and nausea.

**Lead:**

**Short Term Exposure** Lead is an accumulative poison. Inhalation effects of exposure to fumes or dust of inorganic lead may not develop quickly. Symptoms may include decreased physical fitness, fatigue, sleep disturbance, headache, aching bones and muscles, constipation, abdominal pains and decreased appetite. The effects are reversible and complete recovery is possible. Inhalation of large amounts of lead may lead to seizures, coma and death.

**Long Term Exposure** Can result in a buildup of lead in the body and more severe symptoms. These may include anemia, pale skin, a blue line of the gum margin, decreased hand-grip strength, abdominal pain, nausea, vomiting and paralysis of the wrist joint. Prolonged exposure may also result in kidney damage. If the nervous system is affected the resulting effects include severe headaches, convulsions, coma and death. Continued exposure can result in decreased fertility and/or increased chances of miscarriage or birth defects.

**Tin:** The inhalation of inorganic tin fumes or dust may cause an apparent benign pneumoconiosis called stannosis which is reported not to be disabling.

**Zinc:** Relatively low in toxicity but inhalation of fumes may cause "metal fume fever." Onset of symptoms may be delayed 4-12 hours and include irritation of the nose, mouth, and throat, cough, stomach pain, vomiting, metallic taste, chills, fever, pains in the muscles and joints, thirst, bronchitis or pneumonia and a blush tint to the skin. These symptoms go away in 24-48 hours and leave no effect.

### SECTION VI - REACTIVITY DATA

**STABILITY:** Brass metal is stable at room temperature

**CONDITIONS TO AVOID:** Molten metal may react violently with water.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Does not decompose. Reaction with acids could produce noxious gases. In contact with acids, hydrogen gas may evolve.

**POLYMERIZATION:** Will not occur.

**INCOMPATIBILITY:** Copper reacts violently with acetylene, ammonium nitrate, bromates, chlorates, iodates. Copper foil burns spontaneously in gaseous chlorine. Avoid contact with chlorine and oxygen difluoride, ethylene oxide, fluorine, hydrogen peroxide, hydrazine monoitrate, hydrazoic acid. Incompatible with hydrogen sulfide, lead azide, potassium peroxide.

### SECTION VII - PREVENTIVE MEASURES

**VENTILATION:** Local exhaust ventilation is recommended when melting, brazing or grinding brass metal.

**RESPIRATORY:** Wear appropriate NIOSH-MSHA approved respirators whenever workplace contamination exceeds applicable limits.

**EYE PROTECTION:** Wear appropriate eye protection when melting, brazing, soldering, cutting or grinding brass metal.

**HANDLING:** Do not eat or drink when handling this material. Use cotton work gloves to prevent transfer of metal to skin.

**STORAGE:** Store away from corrosive chemicals such as acids.

**SPILLS:** Solid metal does not pose any problems. Dust spills should be cleaned up avoiding dust generation. Collect and recycle to process. Wash down with water if in contact with acids.

**DISPOSAL:** Recycle or dispose of material in accordance with government regulations.