

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **COPPER-NICKEL-ZINC ALLOYS C733, C752, C758, C762, C770**

Other means of identification:

Recommended use of the chemical and restrictions on use:

Chemical manufacturer address and telephone number:

Manufacturer Name: PMX Industries, Inc.
Address: 5300 Willow Creek Drive SW
Cedar Rapids, Iowa 52404-4303
USA
General Phone Number: 319-368-7700
General Fax Number: 319-368-7701

Emergency phone number:

Emergency Phone Number: 319-368-7700

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

Signal Word: Not applicable.

GHS Class: Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200..

Hazards not otherwise classified that have been identified during the classification process:

Emergency Overview: Copper alloy products in the natural state do not present a hazard for emergency response personnel.

Potential Health Effects: Copper alloy products in the natural state do not present an inhalation, ingestion, or contact hazard. However, operations such as burning, welding, sawing, brazing, or grinding may release fumes and/or dusts which may present health hazards if TLVs are exceeded.

Eye: Short-term exposure to fumes/dust may produce irritation.

Inhalation: Short-term exposure to fumes/dust may produce irritation of the respiratory system.

Ingestion: Abdominal pain, nausea, vomiting.

Signs/Symptoms: Metal fume fever - metallic taste in mouth, dryness and irritation of the throat, and influenza-like symptoms. The effects may be delayed.

LEAD

Chronic Health Effects: Repeated or prolonged overexposure to lead may have effects on the gastrointestinal system, the nervous system, the blood-forming system, the immune system, the kidneys, and the reproductive system.

Signs/Symptoms: Lead overexposure - decreased reaction time; weakness in fingers, wrists, or ankles; memory loss; anemia.

COPPER

Skin: Repeated or prolonged exposure to copper dusts or mists may cause irritant or allergic contact dermatitis.

Inhalation: High concentrations of oxide fumes of copper may cause metal fume fever.

Chronic Health Effects: Repeated or prolonged overexposure to copper fume may cause the skin and hair to

change color.

ZINC

Inhalation: High concentrations of oxide fumes of zinc may cause metal fume fever.

NICKEL

Chronic Health Effects: Hypersensitivity to nickel is common and may cause allergic contact dermatitis, pulmonary asthma, and conjunctivitis.

Signs/Symptoms: Nickel overexposure - effects on nasal sinuses, including inflammation and ulceration.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
LEAD	7439-92-1	PERCENT OF MIXTURE: 0.1% (maximum) %	231-100-4
COPPER	7440-50-8	PERCENT OF MIXTURE: 53.5 - 71.0% %	231-159-6
ZINC	7440-66-6	PERCENT OF MIXTURE: 13.24 - 32.0% %	231-175-3
NICKEL	7440-02-0	PERCENT OF MIXTURE: 21% (maximum) %	231-111-4

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Flush with water for at least 15 minutes.

Skin Contact: Wash with soap and water.

Inhalation: If exposed to excessive levels of metal fumes, remove to fresh air. Seek medical attention.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Use extinguishing media appropriate to the surrounding material.

Fire Fighting Instructions: Copper alloy products in the solid state present no fire or explosion hazard, but may react with strong acids, bases, or oxidizing agents.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up:

Spill Cleanup Measures: LEAKS, OR RELEASES: Not applicable

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling: In welding, precautions should also be taken for airborne contaminants that may originate from components of the welding rod.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

LEAD :

Guideline ACGIH: TLV-TWA: 0.05 mg/m³

Guideline OSHA: PEL-TWA: 0.05 mg/m³

COPPER :

Guideline ACGIH: TLV-TWA: 1 mg/m³

TLV-TWA: 0.2 mg/m³

Guideline OSHA: PEL-TWA: 1 mg/m³

PEL-TWA: 0.1 mg/m³

NICKEL :

Guideline ACGIH: TLV-TWA: 1.5 mg/m³ Inhalable fraction (I)

Guideline OSHA: PEL-TWA: 1 mg/m³

PEL-TWA: 1 mg/m³

PEL-TWA: 1 mg/m³

Appropriate engineering controls:

Individual protection measures:

Eye/Face Protection: Safety glasses or goggles should be utilized as required by exposure. Other Protective equipment should be utilized as required by welding standards.

Skin Protection Description: Wear appropriate personal protective clothing to prevent skin contact with copper alloy fumes, dusts, and mists.

Respiratory Protection: NIOSH/MSHA - Approved dust and fume respirator should be used to avoid excessive inhalation of particulates when exposure exceeds TLVs.

Other Protective: Do not eat, drink, or smoke during work. Wash hands before eating or smoking.

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Solid
Physical State Appearance:	LUSTROUS METAL
Color:	Salmon-colored
Odor:	None
Melting Point:	1930 - 2030 deg F
Density:	0.31 LB/IN ³
Specific Gravity:	8.6 - 8.7
Vapor Density:	(Air = 1): Not applicable
Vapor Pressure:	Not Applicable
Percent Volatile:	Not Applicable
Evaporation Rate:	Not Applicable
pH:	Not Applicable
Flash Point:	Not Applicable
Lower Flammable/Explosive Limit:	(%): None
Upper Flammable/Explosive Limit:	(%): None
Auto Ignition Temperature:	Not Applicable

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability: Stable.

Possibility of hazardous reactions:

Hazardous Polymerization: Will not occur.

Conditions To Avoid:

Conditions to Avoid: None

Incompatible Materials:

Incompatible Materials: Mercury, ammonia, acetylene acids
Contact with strong acids, bases, or oxidizing agents.

Hazardous Decomposition Products:

Special Decomposition Products: Metallic dust or fumes may be produced during welding, burning, grinding, and machining.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

LEAD :

ACGIH: (Elemental): Yes

IARC: (Elemental): Yes

NTP: (Elemental): Yes

COPPER :

ACGIH: (Fume, dusts & mists): No

IARC: (Fume, dusts & mists): No

NTP: (Fume, dusts & mists): No

ZINC :

ACGIH: (Oxide fume): No

IARC: (Oxide fume): No

NTP: (Oxide fume): No

NICKEL :

ACGIH: (Elemental/metal): No

IARC: (Elemental/metal): Yes

NTP: (Elemental/metal): Yes

LEAD :

Inhalation: TCLo: 10 µg/M3 (human, inhalation-gastrointestinal effects)

Ingestion: TDLo: 450 mg/kg/6Y (human, oral-peripheral nerve and sensation and behavioral effects)

COPPER :

Ingestion: TDLo: 120 µg/kg (human, oral-gastrointestinal effects)

ZINC :

Inhalation: TCLo: 124 mg/M3/50M (human, inhalation-effects on respiration)

NICKEL :

Ingestion: LDLo: 5 g/kg (rat, oral)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: Not Applicable

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal: According to local, state, and federal regulations.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Not restricted as a dangerous good.
DOT UN Number: Not restricted as a dangerous good.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

LEAD :

TSCA Inventory Status: Listed
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Canada DSL: Listed
EC Number: 231-100-4

COPPER :

TSCA Inventory Status: Listed
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Canada DSL: Listed
EC Number: 231-159-6

ZINC :

TSCA Inventory Status: Listed
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Canada DSL: Listed
EC Number: 231-175-3

NICKEL :

TSCA Inventory Status: Listed
Section 313: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
California PROP 65: Listed: cancer.
Canada DSL: Listed
EC Number: 231-111-4

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

SDS Creation Date: December 23, 1998
SDS Revision Date: September 09, 2015
MSDS Author: Prepared by: Cindy Baldwin, CIH
 Pointer Environmental, Inc.
 6305 Silver Creek Drive
 Davenport, Iowa 52806

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