

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: COPPER ALLOYS C19010 THROUGH C19410 (INCLUDES PMC 102, PMC 102M, AND XP-10)
SDS Manufacturer Number: 227011

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:

Route of Exposure: Inhalation: Yes
Ingestion: Yes
Eye contact: No
Skin: No

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
COPPER	7440-50-8	Of Mixture: > 96% by Mole	231-159-6
NICKEL	7440-02-0	Of Mixture: < 2.0% by Mole	231-111-4
IRON	7439-89-6	Of Mixture: < 3.0% by Mole	231-096-4

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: STEPS TO BE TAKEN IN THE EVENT OF SPILLS, LEAKS, OR RELEASES: Not applicable

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

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

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

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 the welding standards.

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

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: LUSTROUS METAL

Color: Salmon colored

Melting Point: 1900 - 1990 deg F, 1038 - 1090 deg C

Specific Gravity: 8.87 - 8.94

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: 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:

Acute Toxicity:

MISCELLANEOUS TOXICOLOGICAL INFORMATION:

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 TLV's are exceeded.

ACUTE TOXICITY: Short term exposure to fumes/dust may produce irritation of eyes and respiratory system. Inhalation of high concentration of oxide fumes of copper may cause metal fume fever characterized by a metallic taste in the mouth, dryness and irritation of the throat and influenza like symptoms. All nickel containing dusts are regarded as carcinogenic by inhalation. Ingestion of large doses of nickel compounds (1.3 mg/kg) has been shown to cause intestinal disorders, convulsions, and asphyxia.

Chronic Effects:

Nickel is a confirmed carcinogen with experimental carcinogenic and tumorigenic data reported. Hypersensitivity to nickel is common and can cause allergic contact dermatitis, pulmonary asthma, and conjunctivitis.

COPPER :

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

NICKEL :

Ingestion: LDLo: 5 g/kg (rat, oral)
TDLo: 158 mg/kg (rat, oral)

IRON :

Ingestion: LD50: 30 g/kg (rat, oral)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: No environmental information found for this product.

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:

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

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

IRON :

TSCA Inventory Status: Listed

Canada DSL: Listed

EC Number: 231-096-4

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

SDS Creation Date: December 09, 1996

SDS Revision Date:

September 09, 2015

Disclaimer:

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