



BUNTING BEARINGS, LLC

200 Van Buren Street * Delta, Ohio 43515 * (419) 822-3483 * Fax: (419) 822-3372

Safety Data Sheet Bunting Continuous Cast Revised: August 1, 2015

Meets the Requirements of OSHA Standard 29 CFR 1910.1200; Hazard Communication and EPA Supplier Notification Requirements under Section 313 of the Emergency Planning and Community Right-to-Know Act

Section 1 – Material Identification

Manufacturer:	Bunting Bearings, LLC 200 Van Buren Street Delta, Ohio 43515	Emergency Telephone Number 419-866-7000
		Information Telephone Number 419-522-3323
Product Class:	C87850 ECO Brass, ECO Bronze	

Section 2 – Hazards Identifications

Classification of the Substance or Mixture

Classification (GHS-US)

Not classified

Label Elements

GHS-US Labeling

No labeling applicable

Other Hazards

This product in its massive form does not present any hazards. Molten material may produce fumes that are toxic, or irritating, and may cause metal fume fever. Inhalation of fumes may cause metal fume fever characterized by metallic taste in the mouth, accompanied by dryness and irritation of the throat, cough, shortness of breath, general malaise, weakness, fatigue, muscle and joint pains, blurred vision and fever and chills. May also cause hemolytic anemia, liver and kidney damage, and discoloration of the hair and skin. Finely divided metallic dusts may ignite or explode. May cause allergic skin reactions in some individuals. Ingestion may cause metallic taste, abdominal pain, vomiting and diarrhea.

Unknown Acute Toxicity (GHS-US)

No data available

Section 3 – Composition/Information on Ingredients

Ingredient(s)	CAS No.	Percent
Base Metal:		
Copper	7440-50-8	65-85%
Alloys:		
Zinc	7440-66-6	15-35%
Silicon	7440-21-3	1.0-5.7%

Section 4 – First Aid Measures

- Ingestion:** If swallowed and the person is conscious and you don't feel well, seek medical attention. Do not induce vomiting
- Inhalation:** If a person breathes in large amounts of dust or fume, move the exposed people to fresh air. Get medical attention.
- Eye Contact:** Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
- Skin Contact:** Immediately wash with plenty of soap and water. Obtain medical attention if irritation persists.

Most important symptoms and effects, both acute and delayed

- Symptoms/Injuries:** Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.
- After Inhalation:** Not expected to present a significant inhalation hazard under anticipated conditions of normal use. Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.
- After Skin Contact:** None expected under normal conditions of use. Contact with hot, molten metal will cause thermal burns.
- After Eye Contact:** None expected under normal conditions of use. Dusts caused from milling and physical alteration will likely cause eye irritation. Fumes from thermal decomposition or molten material will likely be irritating to the eyes.
- After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

Section 5 Fire Fighting Measures

Flash Point:	N/A	Flammable Limits:	Upper:	N/A
Method:	N/A		Lower:	N/A

Extinguishing Media: Solid form – None
 Fine Chips/Dust – Use a dry chemical or sand

Special Fire Fighting Procedures: Protective Clothing
 NIOSH-self contained breathing apparatus

Unusual Fire and Explosion Hazards: Fine chips or dust may ignite and should be stored in a well-ventilated area.

Section 6 Accidental Release Measures

No special precautions are necessary for spills of bulk materials. If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of air borne dust. Respirators and protective clothing are recommended.

Section 7 – Handling and Storage

No special requirements. Proper hand and foot protection is recommended.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls:

None Required. There are no health hazards from castings in solid form. When cutting, grinding, crushing, or drilling, provide general or local ventilation systems, as needed, to maintain airborne dust concentrations below the regulatory limits. Local vacuum collection is preferred since it prevents release of contaminants into the work area by controlling it at the source. Other technologies that may aid in controlling airborne respirable dust include wet suppression, ventilation, process enclosure, and enclosed employee work stations. Ensure that all electrical components/systems are in compliance with the National Electrical Code.

Supplemental Information:

Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.

Fumes from hot processes may contain other compounds with different exposure limits. Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Exposure limits for the most common contaminants are offered as reference. Please consult a competent person for guidance on exposure assessment and controls.

Metals:	OSHA PEL	ACGIH TLV	
Copper	1.0 mg/m ³	1.0 mg/m ³	dust
Copper	0.1 mg/m ³	0.2 mg/m ³	fume
Zinc	15.0 mg/m ³	10.0 mg/m ³	dust
Zinc	5.0 mg/m ³	5.0 mg/m ³	fume
Silicon	15.0 mg/m ³	10.0 mg/m ³	
Phosphorous	0.1 mg/m ³	0.1 mg/m ³	

Respiratory Protection: When required, employees should wear MSHA or NIOSH approved respirators for protection against airborne dust or fumes.

Ventilation: Use general or local exhaust ventilation to keep airborne concentrations of dust and fumes below the TLV.

Protective Gloves: N/A

Eye Protection: Approved safety glasses and/or goggles should be worn during any machining, grinding, cutting, or other operation from which airborne particles may be emitted.

Other Protective Clothing: N/A

Work/Hygienic Practices: Wash hands after handling materials.

Food or drink should not be consumed in the work area.
Wash hands and face prior to eating, drinking or smoking.

Section 9 – Physical and Chemical Properties

Boiling Point:	N/A	Specific Gravity (H₂O = 1):	7.5-9.0
Vapor Pressure:	N/A	Melting Point:	1500F – 1950F
Vapor Density:	0.27-0.323 1	Evaporation Rate:	N/A
Solubility in Water:	Insoluble		
Appearance:	Yellow to Red		
Odor:	None		

Section 10 – Stability and Reactivity

Stability: Copper alloys are stable under normal conditions of use storage and transportation.

Conditions to Avoid: Molten metal may react violently with water.
Avoid contact of chips and dust with heat, oxidizers, acids, alkali's, molten lithium and halogenated compounds.

Incompatibility: Avoid acids, bases and oxidizers.

Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

Acute Toxicity: Oral: Not classified.

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity

(Single Exposure): Not classified

Specific Target Organ Toxicity

(Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use. Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.

Symptoms/Injuries After Skin Contact: None expected under normal conditions of use. Contact with hot, molten metal will cause thermal burns.

Symptoms/Injuries After Eye Contact: None expected under normal conditions of use. Dusts caused from milling and physical alteration will likely cause eye irritation. Fumes from thermal decomposition or molten material will likely be irritating to the eyes.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Section 12 – Ecological Information

No special precautions are necessary for spills of bulk materials and does not present any hazards. If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of airborne dust. Respirators and protective clothing are recommended.

Section 13 – Disposal Considerations

Follow Federal, State and local regulations regarding disposal. Scrap metals can generally be reclaimed and recycled.

Section 14 – Transportation Information

Non-dangerous product for transportation by road, sea and air. No labels are required.

Section 15 – Regulatory Information

US Federal Regulations

Copper (7440-50-8), **Zinc** (7440-66-6), **Zinc** (7440-66-6), **Silicon** (7440-21-3)

All are listed on the United States TSCA (Toxic Substances Control Act) inventory.
Listed on United States SARA Section 313

US State Regulations

SARA 312 Reporting requirements may be applicable for components of supplied alloy barstock; check State and Local Regulatory

Section 16 – Other Information

Revised: August 1, 2015

The above information is based on upstream suppliers and furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Bunting Bearings LLC. The data on these sheets relates only to the specific material designated herein. Bunting Bearings LLC assumes no legal responsibility for use or reliance upon this data.

Addendum: Label Information

PRODUCT IDENTIFIER

C87850; ECO Brass, ECO Bronze

SUPPLIER IDENTIFICATION

Company Name: Bunting Bearings LLC
Street Address: 1001 Holland Park Blvd.
Mailing Address: Same as Above
City: Holland State: OH
Zip/Postal Code 43528 Country U.S.A.

Emergency Phone Number 419-866-7000

HAZARD PICTOGRAMS

None *

SIGNAL WORD

None *

HAZARD STATEMENTS

None *

PRECAUTIONARY STATEMENTS

None *

*Castings do not present hazards in their original form.

OTHER INFORMATION

1. Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.
2. Fumes from hot processes may contain other compounds with different exposure limits. Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Consult Sections 3 & 8 of the SDS for further information.