BUNTING BEARINGS, LLC

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Material Safety Data Sheet
All Bar Stock SAE 863 (ASTM B439 Grade 4)

Revised: July 1, 2009

Section I – Material Identification

Manufacturer:	Bunting Bearings, LLC 4252 E. Kilgore Rd. Portage, MI 49002	**Emergency Telephone Number** 269-345-8691 **Information Telephone Number** 269-345-8691
Product Class:	All Bar Stock SAE 863 (ASTM B439 Grade 4)	

Section II – Hazardous Ingredients / Identity Information

Hazardous Ingredient(s)	CAS Number	OSHA PEL	ACGIH TLV		Percent Range
Copper	7440-50-8	1.0 mg/m^3	1.0 mg/m^3	dust	18-22%
Copper	7440-50-8	0.1 mg/m^3	0.2 mg/m^3	fume	
Iron	7439-89-6	10.0 mg/m^3	5.0 mg/m^3	dust	BAL
Iron	7439-89-6	10.0 mg/m^3	5.0 mg/m^3	fume	
Mineral Oil	64742-52-5				.63-.77%
Additive – Antioxidant	68921-45-9				<.005

HMIS Rating:	Copper:	Health 1, Flammability 0, Reactivity 0
	Iron:	Health 1, Flammability 0, Reactivity 0
	Mineral Oil:	Health 1, Flammability 1, Reactivity 0

Section III – Physical/Chemical Characteristics

Boiling Point:	N/A	**Specific Gravity (H_2O = 1):**	7.5-9.0
Vapor Pressure:	N/A	**Melting Point:**	1900F – 2200F
Vapor Density:	N/A	**Evaporation Rate:**	N/A
Solubility in Water:	Insoluble		
Appearance:	Grayish color		
Odor:	Mineral oil odor		

Section IV – Fire and Explosion Data

Flash Point:	Above 1290F	**Flammable Limits:**	**Upper:**	N/A
Method:	N/A		**Lower:**	N/A

Extinguishing Media: Foam, dry chemical or sand. Do not use water

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 V – Reactivity Data

Stability: Copper and iron 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.

Hazardous Decomposition: Possibly metal fumes

Section VI – Health Hazard Data

Routes of Entry: Inhalation, Eye, Skin and Ingestion.

Health Hazards:

Copper: Under normal handling and use, exposure to the solid form of copper alloys presents few health hazards. Thermal cutting, melting, machining or grinding may produce fumes or dust containing the component elements and breathing these fumes or dust may present potentially significant health hazards. The exposure levels in Section II are relevant to fumes and dust. Fumes of copper and manganese may cause metal fume fever with flu-like symptoms, and copper may cause hair discoloration. Copper fumes and dust irritate the nose and throat. If too many fumes are inhaled, it will cause a sweet or metallic taste in the mouth. Inhaling excessive amounts of copper dust and fume over a long period of time can cause anemia.

Iron Oxide: Chronic overexposure to iron oxide may cause an apparent benign pneumoconiosis. In the case of iron oxide, this is called siderosis.

Mineral Oil: Prolonged or repeated skin contact may cause skin irritation. Product contacting the eyes may cause eye irritation. Human health risks from person to person. As a precaution, exposure to vapors, mists and fumes should be minimized. This product has low order of acute oral toxicity, but minute amounts aspirated into the lungs during ingestion may cause mild to severe pulmonary injury.

Carcinogen: Materials not listed as carcinogens by NTP, IARC and OSHA.

Emergency and First Aid Procedures:

Ingestion: If swallowed and the person is conscious, immediately give large amounts of water. Try to induce vomiting. Get medical attention. Do not eat or smoke when handling material. Practice good hygiene habits; wash before handling any edible products.

Inhalation: If a person breathes in large amounts of dust of fume, move the exposed people to fresh air. If over-exposed to fumes or oil mist, remove from further exposure until excessive fumes or oil mist conditions subside. 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. Seek medical attention is injury is severe.

Section VII – Precautions for Safe Handling and Use

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

No special precautions are necessary for spills of bulk materials. If large quantities of dust are spilled, remove by vacuuming (equipment should be protected against static electricity) or wet sweeping to prevent heavy concentrations of airborne dust. Respirators and protective clothing are recommended.

Waste Disposal Method:

Follow Federal, State and local regulations regarding disposal. Scrap metals can generally be reclaimed and recycled. Do not dump into sewers, on the ground, or into any body of water.

Precautions to be taken in handling and storing:

Use good safety practices. Store dust away from sources of ignition.
Keep dust dry and away from exposure to water.

Section VIII – Control Measures

Respiratory Protection:	When required, employees should wear MSHA or NIOSH approved respirators for protection against airborne dust or fumes having a TLV of not less than 0.05 mg/m3. Keep exposure below TLV/TWA's.
Ventilation:	Use general or local exhaust ventilation to keep airborne concentrations of dust and fumes below the TLV.
Protective Gloves:	The use of impervious gloves or barrier cream to protect skin is recommended.
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 IX – Transportation Information

Non-dangerous product for transportation by road, sea and air.

Section 313 – Supplier Notification

All components of this product are listed on the Toxic Substance Control Act (TSCA) inventory list. There are no reportable quantities on the Comprehensive Environmental Response Compensation and Liability Act (CERLA) list. Component(s) are listed under various sections of the Clean Water Act (CWA) and the Clean Air Act (CAA). Contact your local/state authorities to determine if substances are regulated under their jurisdiction.

These products contain copper which are all subject to the annual reporting requirements of SARA Section 313 (40 CFR 372) and of the Emergency Planning and Community Right to Know Act of 1986.

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