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SAFETY DATA SHEET

Product : **399 Copper**

Date Prepared : July 10th, 2017

Section 1 - Product and Company Identification

Product Name/Identifier : 399 Copper
Other name / Synonym :
Company Information : Robco Inc.
Address : 7200 St.Patrick, LaSalle QC Canada H8N 2W7
Telephone : 514-367-2252
Email : info@robco.com
Website : www.robco.com

Section 2 - Hazards identification

WHMIS Classification

Robco #399 is considered an "article" when used in normal conditions. Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

HMIS Classification

Health hazard: 0
Flammability: 0
Physical hazards: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Section 3 - Composition/information on ingredients

Ingredient	Percent	C.A.S. No.
Copper	100	7740-50-8

Section 4 - First aid measures

Skin Contact:

Wash with lukewarm water and soap. If irritation persists, seek medical attention.

Eye Contact:

Flush eyes with plenty of water. If irritation develops, seek medical attention.

Inhalation:

If inhaled, remove to fresh air. Get medical attention, if symptoms persist

Section 5 - Firefighting measures

Extinguishing Media:

Non-flammable. Not applicable for solid product. Use Class D extinguishing agents or sand on fires involving dusts or fines. Use extinguishers appropriate for surrounding



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materials. DO NOT use water on molten metal. DO NOT use water on dust, powder or fume fires.

Unusual Fire and Explosion Hazards:

Avoid generating dust. Dusts and fines from processing may be ignitable.

Section 6 - Accidental release measures

Spill or Leak Procedures: Solid waste.

Waste Disposal Method:

Copper should be recycled whenever possible. State and local regulations should be verified prior to disposal of bulk material.

Section 7 - Handling and storage

Wear gloves.

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool well-ventilated place.

Section 8 - Exposure controls/personal protection

Respiratory Protection:

NIOSH approved respirator when the occupational exposure limits are exceeded.

Eye Protection:

Safety glasses with side shields and/or goggles recommended when cutting or transforming material

Protective Gloves:

Sensitive individuals should wear protective gloves.

Other Protective Equipment:

Protective coveralls recommended in atmospheres when in an unlikely high dust concentrations.

Ventilation:

In the unlikely event of fumes : HEPA approved filters and local exhaust ventilation recommended to maintain dust concentrations below the occupational exposure limits.

Section 9 - Physical and chemical properties

Appearance:	Braided golden colored rope
Odor:	No significant smell
Solubility in Water:	Insoluble
Boiling Point:	2595°C (4703°F)
Vapor Density (Air = 1):	N/A
Vapor Pressure (mm Hg):	N/A
Evaporation Rate (= 1):	N/A



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Percent Volatile by Volume:	0.5
Spec. Gravity (H₂O = 1):	8.96

Section 10 - Stability and reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to Avoid:

Reacts violently with hydrogen peroxide and other oxidizers. Reaction with acids could produce noxious gases. In contact with acids, hydrogen gas may evolve. Avoid dust formation. Molten metal can react violently with water or moisture.

Incompatible Materials:

Strong acids, alkalis and oxidizers. Also, mercury, acetylene and halogens

Section 11 - Toxicological Information

Control Parameters:

The exposure limit for copper dusts and fumes has been established as follows in the table below. All OEL values are established as 8-hour Time Weighted Average (TWA) concentrations unless otherwise noted.

Chemical Name	CAS Number	OSHA PEL	ACGIH TLV	NIOSH REL
Copper	7440-50-8	1 mg/m ³ (dust)	1 mg/m ³ (dust)	1 mg/m ³ (dust)
		0.1 mg/m ³ (fume)	0.2 mg/m ³ (fume)	0.1 mg/m ³ (fume)

Appropriate Engineering Controls:

Provide general or local exhaust ventilation to minimize airborne concentrations during milling, grinding, melting and welding operations.

Individual Protective Measures:

Dependent upon process being performed on material. Each operation must be addressed for suitable equipment.

Section 12 - Ecological information

Ecotoxicity:

No data available for copper and alloys in their natural solid state. However, individual components of the material have been found to be toxic to the environment. Metal dusts may migrate into soil and groundwater and be ingested by wildlife.

Component	Toxicity to Fish	Toxicity to Algae	Toxicity to Microorganisms
Copper	LC ₅₀ Fathead Minnow 96 hr.	EC ₅₀ Freshwater Algae 72 hr.	EC ₅₀ Water Flea 48 hr.
	0.0068-0.0156 mg/L	0.0426-0.0535 mg/L	0.03 mg/L



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Persistence and Degradability: No Data

Bioaccumulative Potential: No Data

Mobility in Soil: No Data

Other Adverse Effects: None Known.

Section 13 - Disposal considerations

Waste Disposal Method: Recover copper for recycling.

Section 14 - Transport information

DOT Transportation Classification: Not Regulated

IATA Transportation Classification: Not Regulated

IMDG Transportation Classification: Not Regulated

Section 15 - Regulatory information

Regulations for dangerous material not applicable.

Section 16 - Other information

DOT:	US Department of Transportation
IATA:	International Air Transport Association
EINECS:	European Inventory of Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
HMIS:	Hazardous Materials Identification System (USA)
WHMIS:	Workplace Hazardous Materials Information System (Canada)
ACGIH:	American Conference of Governmental Industrial Hygienists (USA)
OSHA:	Occupational Safety and Health Administration (USA)
NTP:	National Toxicology Program (USA)
IARC:	International Agency for Research on Cancer
EPA:	Environmental Protection Agency (USA)

Disclaimer :

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, storage, transportation and release and is not considered a warranty or quality specification. The responsibility for the compliance with existing law and regulations lies with the receiver of the product.