SAFETY DATA SHEET

BRASS POWDER

C.A.S. Number: Cu-7440-50-8
Zn-7440-66-6

SECTION 1 – IDENTIFICATION

Product/Material:		**BR-101/102**
Product Name:		Brass Metal Powder
Synonyms:		Brass Alloy; Brass (Unleaded) Powder
CAS No.:		Cu-7440-50-8; Zn-7440-66-6
Distributor's Details: **Address:**		Sokolowski Studios LLC. 111 Mid Valley Rd. Lake Ariel, PA 18436
Telephone/Fax Numbers:		(570) 937-9400
Emergency Contact:	**CHEMTREC**	(800) 424-9300 (703) 527-3887 (Outside the USA)
Product Use:		For powder metallurgy applications.
Restrictions:		Industrial use only.

SECTION 2 – HAZARDS IDENTIFICATION

Health Hazards

Acute Toxicity, Oral:	Category 4
Acute Toxicity, Inhalation:	Category 4
Irritant, Eye:	Category 2B
Copper Fume: Irritant, Respiratory:	Category 3

Environmental Hazards

Acute Aquatic Toxicity:	Category 1

Physical Hazards: None known

Pictogram:

Signal Word: Warning

Hazard Statements

H302:	Harmful if swallowed.
H335:	May cause respiratory irritation.
H320:	Causes eye irritation.
H412:	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P264:	Wash hands thoroughly after handling.
P261:	Avoid breathing dust/fume/gas/mist/vapors/spray.
P270:	Do not eat, drink or smoke when using this product.
P273:	Avoid release to the environment.
P284:	Wear respiratory protection.
P301 + P330 – If Swallowed:	Rinse mouth with water.
P304 + P340 – If Inhaled:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Range % by Wt.	EINECS #
Copper	7440-50-8	60-98	231-159-6
Zinc	7440-66-6	2-40	231-175-3

SECTION 4 – FIRST-AID MEASURES

Eyes:	Flush eyes with plenty of water, lifting the upper and lower eyelids occasionally. Get medical attention if irritation develops.
Skin:	Wash the skin using soap or a mild detergent and warm water.
Inhalation:	Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get immediate medical attention. Fume from metallizing, welding or similar processes can cause respiratory irritation and/or metal fume fever (respiratory irritation, chills, nausea).
Ingestion:	If person is conscious, rinse mouth and give large quantities of water to drink. Get medical attention.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media:	Graphite, dolomite or sodium chloride. Do NOT use water.
Unusual Fire And Explosion Hazards:	None identified.
Fire Fighting Equipment:	Wear full bunker gear including a positive pressure self-contained breathing apparatus.
Precautions:	Keep away from ignition sources (e.g. heat and open flames). None required. Keep container closed.
Hazardous Decomposition:	None identified.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Restrict the area to those persons wearing respiratory protection. Do not allow unprotected people into the area until cleanup has been completed.

Ventilate the area thoroughly.

Collect the powder in a manner that minimizes further dust generation.

Keep out of sewers and waterways.

Recycle or dispose of as a waste (see Section 13).

SECTION 7 – HANDLING AND STORAGE

Avoid dust generation. Wash thoroughly after handling. Eating, drinking, and smoking are prohibited in work areas. Store powder in a dry area, -18° to 38°C.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Requirements: Keep dust and fume levels below occupational exposure limits. Local exhaust ventilation may be necessary for some operations.

Personal Protective Equipment

Eyes: Wear dust-proof safety goggles. Contact lenses are not recommended.

Skin: None required; however, use of protective gloves and clothing is good industrial practice. The use of impervious gloves or barrier cream to protect the skin is recommended. Workers should wash before eating or smoking. If the occupational exposure limits are exceeded, workers should shower and change clothing before leaving work. (See 29 CFR 1910.1025).

Inhalation: Do not breathe dust or fume. Use with adequate ventilation. Use NIOSH/MSHA approved respirator.

Occupational Exposure Limits

Copper Dust and Mists

ACGIH TLV:	1.0 mg/m³
NIOSH IDLH:	100 mg/m³
OSHA PEL:	1.0 mg/m³

IDLH = Immediately dangerous to life and health.

Copper is on the Sara Title III, Section 313 Toxic Chemicals List.

Copper Fume

ACGIH TLV:	0.2 mg/m³
NIOSH IDLH:	100 mg/m³
OSHA PEL:	0.1 mg/m³

IDLH = Immediately dangerous to life and health.

Copper is on the Sara Title III, Section 313 Toxic Chemicals List.

Zinc

ACGIH TLV:	5.0 mg/m³
NIOSH IDLH:	Not established.
OSHA PEL:	Not established.

IDLH = Immediately dangerous to life and health.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Yellow-red powder; Odorless
Flash Point:	Not determined.
Flammability	Not determined.
Autoignition Temperature	Not determined.
pH:	Not applicable.
Vapor Pressure:	Not volatile.
Vapor Density:	Not volatile.
Melting Point:	799-1025°C
Boiling Point:	Not determined.
Solubility in Water:	Not soluble.
Solubility in Fat:	Not determined.
Octanol/Water Partition Coefficient:	Not determined.
Relative Density (Water=1):	3.2-8.5
Viscosity:	Not applicable.

SECTION 10 – STABILITY AND REACTIVITY

Stability:	Stable.
Incompatible Materials:	Copper is explosively incompatible with sodium azide. Copper dusts may react with acetylene gas to form copper acetylides, which are sensitive to shock. Copper mists may react with magnesium to form flammable hydrogen gas.
Hazardous Decomposition:	None identified.
Hazardous Polymerization:	Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

Copper is an essential element of mammalian metabolism. Copper metal has little or no serious toxicity. The most common adverse effect associated with copper is the acute inhalation of copper fume during refining or welding. Inhalation of copper fume or dust may result in metal fume fever, which is characterized by upper respiratory irritation, chills, metallic or sweet taste, nausea, and aching muscles. Attacks usually begin after 4-8 hours of exposure and last only 24-48 hours. Inhalation of fumes has been reported to sometimes cause discoloration of the skin and hair. Nausea and vomiting may result if larger amounts of copper metal are ingested. This is probably due to the conversion of the swallowed metal copper to its irritating salts. It is unlikely that poisoning by ingestion in industry would progress to a serious point because small amounts induce vomiting, emptying the stomach of copper salts. High airborne concentrations of copper metal would be expected to cause mechanical irritation of the eyes and respiratory tract. Metallic copper may cause keratinization of the hands and soles of the feet, but it is not commonly associated with industrial dermatitis.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency for Research on Cancer (IARC).

SECTION 12 – ECOLOGICAL INFORMATION

No data on the ecological effects of this product have been developed.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal must be in accordance with applicable local, state and federal regulations (contact local, state, or federal environmental agency for specific rules). Do not dump into sewers, on the ground, or into any body of water.

SECTION 14 – TRANSPORT INFORMATION

DOT:	RQ, UN 3077, Environmentally Hazardous Substance, Solid NOS (contains Copper), Class 9, PG III Marine Pollutant.
DOT Exception:	Under 49 CFR 171.4, except when transporting aboard a vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicles, rail cars, and aircraft.
ADR/RID:	Not regulated.
IMO/IMDG:	UN3077, Environmentally Hazardous Substances, Solid, NOS (contains Copper and Zinc), Class 9, PG III Marine Pollutant.
ICAO/IATA :	UN3077, Environmentally Hazardous Substances, Solid, NOS (contains Copper and Zinc), Class 9, PG III Marine Pollutant.
Reportable Quantity:	Copper 5,000 lbs.

SECTION 15 – REGULATORY INFORMATION

Health Hazard:	1 – Slight: Slightly Toxic – May cause slight irritation.
Flammability Hazard:	1 – Slight: Slightly Combustible – Requires strong heating to ignite.
Reactivity Hazard:	0 – Minimal: Normally stable, does not react with water.
Maximum Personal Protection:	E – Safety Glasses, Gloves & Dust Respirator.

All chemical constituents of these products are listed on the TSCA inventory of chemical substances maintained by the U.S. Environmental Protection Agency (EPA).

SECTION 16 – OTHER INFORMATION

"Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Sokolowski Studios, LLC makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will , Sokolowski Studios, LLC, be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information.

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