

SAFETY DATA SHEET

Revision Date 02-April-2024

Revision Number 5

1. Identification

Product Name Brass spheres

Cat No. : 45139

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Importer/Distributor

Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification Not classified under the Hazardous Products Regulations (SOR/2015-17)

Based on available data, the classification criteria are not met

Label Elements

None required

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Copper	7440-50-8	70
Zinc	7440-66-6	30

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms/effects Notes to Physician	None reasonably foreseeable. Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	approved class D extinguishers.
Unsuitable Extinguishing Media	Water may be ineffective
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Metal oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
0

Flammability
0

Instability
0

Physical hazards
-

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.
Environmental Precautions	Should not be released into the environment.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.
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Storage. Keep in a dry place. Keep away from acids.

8. Exposure controls / personal protection

Exposure Guidelines

Component	Alberta	British Columbia	Ontario TWAEV	Quebec	ACGIH TLV	OSHA PEL	NIOSH
Copper	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 1 mg/m ³ TWA: 0.2 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 0.2 mg/m ³	(Vacated) TWA: 0.1 mg/m ³ TWA: 0.1 mg/m ³ TWA: 1 mg/m ³	IDLH: 100 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH - NIOSH - National Institute for Occupational Safety and Health

Engineering Measures None under normal use conditions.

Personal protective equipment

Eye Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Hand Protection No special protective equipment required

Glove material	Breakthrough time	Glove thickness	Glove comments
Nitrile rubber	See manufacturers recommendations	-	Splash protection only

Respiratory Protection

No protective equipment is needed under normal use conditions.

Recommended Filter type: Particle filter

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

Physical State	Solid Spheres
Appearance	Copper
Odor	Odorless
Odor Threshold	No information available
pH	Not applicable
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available

Flammability or explosive limits

Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	8.53 g/cm ³
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Metal oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity**Product Information**

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Mist LC50	Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Copper	Not listed	Not listed	LC50 > 5.11 mg/L (Rat) 4 h
Zinc	LD50 = 630 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products	No information available
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Copper	7440-50-8	Not listed	Not listed	Not listed	Not listed	Not listed
Zinc	7440-66-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects	No information available
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Reproductive Effects	No information available.
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Developmental Effects	No information available.
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Teratogenicity	No information available.
STOT - single exposure	None known
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	No information available
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Contains a substance which is: Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper	EC50: 0.031 - 0.054 mg/L, 96h static (Pseudokirchneriella subcapitata) EC50: 0.0426 - 0.0535 mg/L, 72h static (Pseudokirchneriella subcapitata)	LC50: = 1.25 mg/L, 96h static (Lepomis macrochirus) LC50: = 0.3 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 0.8 mg/L, 96h static (Cyprinus carpio) LC50: = 0.112 mg/L, 96h flow-through (Poecilia reticulata) LC50: = 0.052 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 0.0068 - 0.0156 mg/L, 96h (Pimephales promelas) LC50: < 0.3 mg/L, 96h static (Pimephales promelas) LC50: = 0.2 mg/L, 96h flow-through (Pimephales promelas)	Not listed	EC50: = 0.03 mg/L, 48h Static (Daphnia magna)
Zinc	EC50: 0.09 - 0.125 mg/L, 72h static (Pseudokirchneriella subcapitata) EC50: 0.11 - 0.271 mg/L, 96h static (Pseudokirchneriella subcapitata)	LC50: = 0.41 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 0.59 mg/L, 96h semi-static (Oncorhynchus mykiss) LC50: 2.16 - 3.05 mg/L, 96h flow-through (Pimephales promelas) LC50: 0.211 - 0.269 mg/L, 96h semi-static (Pimephales promelas) LC50: = 2.66 mg/L, 96h static (Pimephales promelas) LC50: = 30 mg/L, 96h (Cyprinus carpio) LC50: = 0.45 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 7.8 mg/L, 96h static (Cyprinus carpio) LC50: = 0.24 mg/L, 96h flow-through (Oncorhynchus mykiss)	Not listed	EC50: 0.139 - 0.908 mg/L, 48h Static (Daphnia magna)

		mykiss) LC50: = 3.5 mg/L, 96h static (Lepomis macrochirus)		
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Persistence and Degradability Insoluble in water May persist

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Copper	7440-50-8	X	-	X	ACTIVE	231-159-6	-	-
Zinc	7440-66-6	X	-	X	ACTIVE	231-175-3	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Copper	7440-50-8	X	KE-08896	X	-	X	X	X	X
Zinc	7440-66-6	X	KE-35518	X	-	X	X	X	X

Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Component	Canada - National Pollutant Release Inventory (NPRI)	Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances	Canada's Chemicals Management Plan (CEPA)
Copper	Part 1, Group A Substance		
Zinc	Part 1, Group A Substance		

Legend NPRI - National Pollutant Release Inventory

Other International Regulations

Authorisation/Restrictions according to EU REACH

Not applicable

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Copper	-	Use restricted. See item 75. (see link for restriction details)	-
Zinc	-	Use restricted. See item 75. (see link for restriction details)	-

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Copper	7440-50-8	Listed	Not applicable	Not applicable	Not applicable
Zinc	7440-66-6	Listed	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Copper	7440-50-8	Not applicable	Not applicable	Not applicable	Not applicable
Zinc	7440-66-6	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

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Revision Summary

New emergency telephone response service provider.

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 a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS