Safety Data Sheet

29 CFR 1910.1200 App D

VeroMetal®

VeroMetal® Copper

Revision: 2026-02-05
Replaces version of: 2025-10-17 (3)

Version number: 4.0:

SECTION 1: Identification

1.1 Product identifier

Trade name **VeroMetal® Copper**

Identification of the substance **granulated copper**

CAS number 7440-50-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Professional use

1.3 Details of the supplier of the safety data sheet

Bespoke Finish LLC
2342 County Road J
White Bear Township, MN 55110
UNITED STATES

Telephone: +1 833-922-2466 toll free within USA and Canada
e-mail: info@bespoke-finish.com
Website: www.bespoke-finish.com

Additional information

Manufacturer

Country	Name	Telephone	Website
Netherlands	VeroMetal® International BV	+31 45 5313 080	www.verometal.com

1.4 Emergency telephone number

Country	Name	Telephone
United States	CHEMTREC (USA + Canada)	(800) 424-9300 (U.S.) / +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This substance does not meet the criteria for classification.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- signal word Not required.
- pictograms Not required.

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance granulated copper

Identifiers

CAS No	7440-50-8
Molecular formula	Cu
Molar mass	63.55 $^{g}/_{mol}$

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Brush off loose particles from skin. Rinse skin with water/shower. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

Do not rub the eyes. Mechanical stress can cause damage to the cornea. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

Rinse mouth with water (only if the person is conscious). Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

For specialist advice physicians should contact the poison centre.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water; Foam; Dry extinguishing powder; ABC-powder;
Coordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

During fire hazardous fumes/smoke could be produced.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Control of dust.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases. Wear personal protective equipment/face protection.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- explosive atmospheres

Removal of dust deposits.

- incompatible substances or mixtures

Keep away from alkalis, oxidising substances, acids.

Control of the effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight.

Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed.

- ventilation requirements

Use local and general ventilation.

- packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs and other threshold levels				
Endpoint	**Threshold level**	**Protection goal, route of exposure**	**Used in**	**Exposure time**
DNEL	1 mg/m³	human, inhalatory	worker (industry)	acute - local effects
DNEL	20 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	1 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
DNEL	20 mg/m³	human, inhalatory	consumer (private households)	acute - systemic effects
DNEL	1 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects
DNEL	1 mg/m³	human, inhalatory	consumer (private households)	acute - local effects
DNEL	0.041 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
DNEL	137 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	273 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
DNEL	137 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
DNEL	273 mg/kg bw/day	human, dermal	consumer (private households)	acute - systemic effects

Relevant PNECs and other threshold levels				
Endpoint	**Threshold level**	**Organism**	**Environmental compartment**	**Exposure time**
PNEC	6.3 µg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	5.2 µg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	230 µg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	87 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	676 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	65 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation. Provide eyewash stations and safety showers at the workplace.

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection

Skin protection



Chemical protective clothing.

Hand protection



Wear suitable gloves. The selection of the suitable gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer.

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >10 minutes (permeation: level 1).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. P2 (filters at least 94 % of airborne particles, color code: White). Observe the OSHA respirator regulations cited in 29 CFR 1910.134 and use NIOSH/MSHA approved respirators.

Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Color	copper
Odor	odorless
Melting point/freezing point	1,059 °C
Boiling point or initial boiling point and boiling range	not determined
Evaporation rate	not determined
Flammability	non-combustible
Lower and upper explosion limit	LEL: UEL: not relevant (solid)
Flash point	not applicable
Auto-ignition temperature	>1,059 °C (relative self-ignition temperature for solids)
Decomposition temperature	>1,071 °C
pH (value)	not applicable
Kinematic viscosity	not relevant

Solubility

Water solubility	<1 $^{mg}/_{l}$ at 30 °C

Partition coefficient n-octanol/water (log value)	not relevant (inorganic)

Vapor pressure	not determined

Density and/or relative density

Density	8.78 $^{g}/_{cm^3}$ at 20 °C
Relative vapour density	information on this property is not available

Particle characteristics

Particle characteristics	no data available
Particle size	138 µm

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This substance does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)			
Endpoint	**Value**	**Species**	**Exposure time**
LC50	193 $^{µg}/_{l}$	fish	96 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Recycling/reclamation of metals and metal compounds. Recycling/reclamation of other inorganic materials.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 3077
IMDG-Code	UN 3077
ICAO-TI	UN 3077

14.2 UN proper shipping name

DOT	Environmentally hazardous substance, solid, n.o.s.
IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

ICAO-TI	Environmentally hazardous substance, solid, n.o.s.
Technical name	granulated copper

14.3 Transport hazard class(es)

DOT	9
IMDG-Code	9
ICAO-TI	9

14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

hazardous to the aquatic environment

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

No data available.

Additional information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - additional information

Particulars in the shipper's declaration	UN3077, Environmentally hazardous substance, solid, n.o.s., (Copper Powder), 9, III
Reportable quantity (RQ)	5,000 lbs (2,270 kg) (Copper Powder)
Danger label(s)	9, fish and tree



Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	8, 146, 335, 384, 441, A112, B54, B120, IB8, IP3, N20, N91, T1, TP33
ERG No	171

International Maritime Dangerous Goods Code (IMDG) - additional information

Marine pollutant	yes (hazardous to the aquatic environment) (granulated copper)
Danger label(s)	9, fish and tree



Special provisions (SP)	274, 335, 966, 967, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Environmental hazards	yes (hazardous to the aquatic environment)

Danger label(s)	9, fish and tree



Special provisions (SP)	A97, A158, A179, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) substance is listed (ACTIVE)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

Not listed.

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name acc. to inventory	**CAS No**	**Remarks**	**Effective date**
copper	7440-50-8		1987-01-01

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name acc. to inventory	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
copper	7440-50-8	[4]	2	5000 (2270)

Legend

2	"2" indicates that the source is section 307(a) of the Clean Water Act
[4]	No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers (0.004 inches).

Clean Air Act

Not listed.

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name acc. to inventory	CAS No	Functionality	Authoritative Lists
Copper	7440-50-8		CWA 303(c) CWA 303(d) OEHHA RELs

- Toxic or Hazardous Substance List (MA-TURA)

Name acc. to inventory	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Copper	7440-50-8				1.0 %
Copper Compounds		1015			1.0 %

- Hazardous Substances List (MN-ERTK)

Name acc. to inventory	CAS No	References	Remarks
Copper, (as Cu)	7440-50-8	A, O	dust mist
Copper	7440-50-8	A, O	fume

Legend

A	American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
dust	If the substance poses an airborne particulate exposure hazard, the substance is followed by the word "dust."
fume	Small solid particles formed by the condensation of vapors of solid materials.
O	Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

- Hazardous Substance List (NJ-RTK)

Name acc. to inventory	CAS No	Remarks	Classifications
copper	7440-50-8		

- Hazardous Substance List (RI-RTK)

Name acc. to inventory	CAS No	References
Copper (fume, dust and mists) as Cu	7440-50-8	T

Legend

T	Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Not listed.

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	0	no significant risk to health
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	0	material that will not burn under typical fire conditions
Health	0	material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.3	Details of the supplier of the safety data sheet: Bespoke Finish LLC 2342 County Road J White Bear Township 55110, MN UNITED STATES Telephone: +1 833-922-2466 toll free within USA and Canada e-mail: info@bespoke-finish.com Website: www.bespoke-finish.com	Details of the supplier of the safety data sheet: Bespoke Finish LLC 2342 County Road J White Bear Township, MN 55110 UNITED STATES Telephone: +1 833-922-2466 toll free within USA and Canada e-mail: info@bespoke-finish.com Website: www.bespoke-finish.com
9.1		Lower and upper explosion limit: LEL: UEL: not relevant (solid)
9.1		Particle characteristics: no data available
9.2		Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant
16		Abbreviations and acronyms: change in the listing (table)

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
ED	Endocrine disruptor
EmS	Emergency Schedule

Abbr.	Descriptions of used abbreviations
ERG No	Emergency Response Guidebook - Number
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
LHS	Lower hazard substance
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
UEL	Upper explosion limit (UEL)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.