

<a href="#">Copper Silver Alloy</a>	<a href="#">Pricing &gt;</a>
<a href="#">Copper Silver Inquarts</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Alloy</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Alloy Nanoparticles / Nanopowder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Alloy Particles</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Alloy Powder</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Foil</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Sputtering Target</a>	<a href="#">Pricing &gt;</a>
<a href="#">Silver Copper Wire</a>	<a href="#">Pricing &gt;</a>

<b>Linear Formula</b>	AgCu
<b>Pubchem CID</b>	16217327
<b>MDL Number</b>	MFCD00192592
<b>EC No.</b>	235-481-8
<b>IUPAC Name</b>	copper; silver
<b>SMILES</b>	[Cu].[Ag]
<b>Inchl Identifier</b>	InChI=1S/Ag.Cu
<b>Inchl Key</b>	NEIHULKJZQTQKJ-UHFFFAOYSA-N
<b>Signal Word</b>	Danger
<b>Hazard Statements</b>	H400-H410
<b>Hazard Codes</b>	N
<b>Precautionary Statements</b>	P273-P391-P501a
<b>Risk Codes</b>	N/A
<b>Safety Statements</b>	N/A
<b>Transport Information</b>	UN 3077 9 / PGIII
<b>WGK Germany</b>	3

GHS Pictograms

**GHS09**  
**Environment**



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## SAFETY DATA SHEET

Date Accessed: 04/19/2024

Date Revised: 01/15/2022

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### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #12249-45-5

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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### SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
The substance is not classified as hazardous to health or the environment according to the CLP regulation.  
Classification according to Directive 67/548/EEC or Directive 1999/45/EC  
Not applicable  
Information concerning particular hazards for human and environment:  
No information known.  
Hazards not otherwise classified  
No information known.  
Label elements  
Labelling according to Regulation (EC) No 1272/2008  
Not applicable  
Hazard pictograms  
Not applicable  
Signal word

Not applicable  
Hazard statements  
Not applicable  
WHMIS classification  
Not controlled  
Classification system  
HMIS ratings (scale 0-4)  
(Hazardous Materials Identification System)  
Health (acute effects) = 0  
Flammability = 0  
Physical Hazard = 0  
Other hazards  
Results of PBT and vPvB assessment  
PBT: Not applicable.  
vPvB: Not applicable.

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical characterization: Substances  
CAS# Description:  
7440-50-8 Copper  
7440-22-4 Silver

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
General information  
No special measures required.  
After inhalation  
Seek medical treatment in case of complaints.  
After skin contact  
Generally the product does not irritate the skin.  
After eye contact  
Rinse opened eye for several minutes under running  
water. If symptoms persist, consult a doctor.  
After swallowing  
If symptoms persist consult doctor.  
Information for doctor  
Most important symptoms and effects, both acute and  
delayed  
No further relevant information available.  
Indication of any immediate medical attention and  
special treatment needed  
No further relevant information available.

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### **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents

Special powder for metal fires. Do not use water.  
For safety reasons unsuitable extinguishing agents  
Water  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Copper oxides  
Advice for firefighters  
Protective equipment:  
No special measures required.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Not required.  
Environmental precautions:  
Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach sewage system or any water course.  
Do not allow to penetrate the ground/soil.  
Methods and material for containment and cleaning up:  
Pick up mechanically.  
Prevention of secondary hazards:  
No special measures required.  
Reference to other sections  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

Handling  
Precautions for safe handling  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Information about protection against explosions and fires:  
No special measures required.  
Conditions for safe storage, including any incompatibilities  
Storage  
Requirements to be met by storerooms and receptacles:  
No special requirements.  
Information about storage in one common storage facility:

No information known.  
Further information about storage conditions:  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Specific end use(s)  
No further relevant information available.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems:  
No further data; see section 7.  
Control parameters  
Components with limit values that require monitoring at the workplace: 7440-50-8 Copper (100.0%)  
PEL (USA) Long-term value: 1\* 0.1\*\* mg/m<sup>3</sup> as Cu  
\*dusts and mists \*\*fume  
REL (USA) Long-term value: 1\* 0.1\*\* mg/m<sup>3</sup> as Cu  
\*dusts and mists \*\*fume  
TLV (USA) Long-term value: 1\* 0.2\*\* mg/m<sup>3</sup> \*dusts and mists; \*\*fume; as Cu  
EL (Canada) Long-term value: 1\* 0.2\*\* mg/m<sup>3</sup> \*dusts and mists; \*\*fume  
EV (Canada) Long-term value: 0.2\* 1\*\* mg/m<sup>3</sup> as copper, \*fume,\*\*dust and mists  
Additional information: No data  
Exposure controls  
Personal protective equipment  
General protective and hygienic measures  
The usual precautionary measures for handling chemicals should be followed.  
Maintain an ergonomically appropriate working environment.  
Breathing equipment: Not required.  
Protection of hands: Not required.  
Penetration time of glove material (in minutes)  
Not determined  
Eye protection: Safety glasses  
Body protection: Protective work clothing.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties  
General Information  
Appearance:  
Form: Solid in various forms  
Color: Not determined  
Odor: Not determined  
Odor threshold: Not determined.

pH-value: Not applicable.  
Change in condition  
Melting point/Melting range: Not determined  
Boiling point/Boiling range: Not determined  
Sublimation temperature / start: Not determined  
Flammability (solid, gaseous): Not determined.  
Ignition temperature: Not determined  
Decomposition temperature: Not determined  
Auto igniting: Not determined.  
Danger of explosion: Not determined.  
Explosion limits:  
Lower: Not determined  
Upper: Not determined  
Vapor pressure at 20 °C (68 °F): Not determined  
Density at 20 °C (68 °F): Not determined  
Relative density: Not determined.  
Vapor density: Not applicable.  
Evaporation rate: Not applicable.  
Solubility in / Miscibility with Water: Insoluble  
Partition coefficient (n-octanol/water): Not determined.  
Viscosity:  
dynamic: Not applicable.  
kinematic: Not applicable.  
Other information  
No further relevant information available.

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No information known.  
Chemical stability  
Stable under recommended storage conditions  
Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and stored according to specifications.  
Possibility of hazardous reactions  
No dangerous reactions known  
Conditions to avoid  
No further relevant information available.  
Incompatible materials:  
No information known.  
Hazardous decomposition products:  
Copper oxides

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this

substance.

LD/LC50 values that are relevant for classification:

Oral LD50 >5000 mg/kg (mouse)

Skin irritation or corrosion: No irritant effect.

Eye irritation or corrosion: No irritant effect.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Carcinogenicity:

EPA-D: Not classifiable as to human carcinogenicity:

inadequate human and animal evidence of carcinogenicity or no data are available.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

Reproductive toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: No effects known.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Carcinogenic categories

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

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## SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No further relevant information available.

Persistence and degradability

No further relevant information available.

Bioaccumulative potential

No further relevant information available.

Mobility in soil

No further relevant information available.

Additional ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits.

Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects  
No further relevant information available.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Recommendation  
Consult state, local or national regulations to ensure proper disposal.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number  
DOT, ADN, IMDG, IATA  
Not applicable  
UN proper shipping name  
DOT, ADN, IMDG, IATA  
Not applicable  
Transport hazard class(es)  
DOT, ADR, ADN, IMDG, IATA  
Class  
Not applicable  
Packing group  
DOT, IMDG, IATA  
Not applicable  
Environmental hazards:  
Marine pollutant (IMDG):  
Yes (PP)  
Yes (P)  
Special precautions for user  
Not applicable.  
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
Not applicable.  
Transport/Additional information:  
DOT  
Marine Pollutant (DOT):  
No  
UN "Model Regulation":  
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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental



regulations/legislation specific for the substance or mixture

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

7440-50-8 Copper

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of

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