Safety Data Sheet

Copper Tungsten Forms & Scrap

DATE: January 1, 2017

1. IDENTIFICATION OF PRODUCT & COMPANY INFORMATION

1.1 Product Identifier

Product Name:	**Copper Tungsten Forms & Scrap**
Chemical Name:	**Tungsten (W) Matrix filled with Copper (Cu)**
CAS Number:	Not applicable
EINECS No.:	Not applicable
Molecular Weight:	Not applicable
REACH Registration No.:	Not applicable

1.2 Relevant Identified Uses of Product and Uses Advised Against

Identified Uses:	Resistance welding electrodes, EDM & ECM Electrodes, Electrical Contacts
Uses Advised Against:	None known

1.3 Details of the Supplier of the Product Information Sheet

Name:	Southern Copper & Supply Company Inc.
Address:	875 Yeager Parkway, Pelham, AL 35124
	United States
Phone:	Ph. 800-289-2728
EMAIL:	info@southerncopper.com
	Emergency phone number: 911

1.4 Emergency Phone Number

911

2. HAZARDS IDENTIFICATION

General Statement: Because of its solid form, this product does not pose a hazard, however, if exposed to grinding dust, some skin or eye irritation may occur. To prevent minimal irritation, always use appropriate protective equipment, and wash thoroughly after handling.

2.1 Classification of the Product:

Per OSHA CFR 1910.1200 HCS	Not applicable

2.2 Label Elements

Hazard Pictograms:	None
Signal Word:	Not applicable
Hazard Statements:	None
Precautionary Statements:	None

2.3 Other Hazards:

Per PBT or vPvB assessment, neither is applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Ingredients	Tungsten	Copper
EINECS No.	231-143-9	231-159-6
CAS No.	7440-33-7	7440-50-8
% by Weight		
Classification for DSD/CLP	In the particle size used, it is not classified per DSD/CLP	Copper is not classified under DSD/CLP

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

Copper-Tungsten products do not produce large volumes of dust, however, when ground wet or dry, will produce dust which may be inhaled or ingested and may cause irritation to the skin or eyes.

EYES:	Rinse eye under clean running water until irritation goes away. If irritation continues, see a doctor.
SKIN:	Clean skin with soap and water, then rinse thoroughly. If irritation continues, see a doctor.
INGESTION:	Do not induce vomiting. Rinse mouth with clean water. Call for medical help as soon as possible.
INHALATION:	Remove to fresh air. Call a doctor if needed.

4.2 Most Important Symptoms and Effects, both Acute and Delayed

The dust or mist generated during dry or wet grinding may cause eye or skin irritation. If too much dust is inhaled, a slight respiratory irritation could occur. If these symptoms continue, see a doctor.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information is available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing Media

Copper-Tungsten products do not pose a fire hazard; however, the area around them may pose a problem. Research and use the proper extinguisher for the materials around the area.

5.2 Special Hazards Arising from the Substance or Mixture

The Copper-Tungsten part, by itself, does not pose a fire hazard. During machining or grinding, dust may occur. Do not allow the dust to pile up, as it could ignite. If the dust comes in touch with an ignition source (match), it could catch fire. Fight any fire with a CO2 powder extinguisher. Fumes from any fire may cause inhalation problems. If the fire persists, call your local fire department.

5.3 Advice for Firefighters

Copper-Tungsten will begin to oxidize above 1200°F. Firefighters should wear a fully protective suit and self-contained respiratory equipment if any fumes are detected.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

Copper-Tungsten, in its finished product state, does not emit any hazards that need accidental release measures. During the machining process, however, dust and grinding mist may occur. To avoid inhalation, ingestion, or skin/eye irritation, always wear proper protective equipment such as safety glasses, gloves, long sleeve shirts, and respiratory equipment, if needed. Ensure adequate ventilation.

6.2 Environmental Precautions

Use adequate dust collection equipment to prevent the dust from getting into the environment.

6.3 Methods and Material for Containment and Clean-Up

Copper-Tungsten and its scrap by-products (grinding, sludge, turnings) can be recycled. Be sure to ship product in suitable containers for either reclaim or disposal. For disposal, only use local, state, and federally approved sources.

6.4 Reference to Other Sections

See section 8 for information on personal protection equipment and section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Copper-Tungsten parts do not require special safety handling or storage during standard operating conditions. It is suggested, however, that the use of gloves and eye protection be heeded. Minimize dust generation, and keep the work area well-ventilated.

7.2 Conditions for Safe Storage – Including any Incompatibilities

No special handling or storage is needed.

7.3 Specific End Use(s)

Resistance welding electrodes, EDM and ECM electrodes, electrical contacts, Telcom heat sinks or packages

8. EXPOSURE CONTROL / PERSONAL PROTECTION

The exposure parameters listed below are a compilation of those for copper-tungsten, copper powder, and tungsten powder.

8.1 Control Parameters

	Tungsten		Copper	
Ingredient	**TWA**	**STEL**	**TWA**	**STEL**
OSHA PEL mg/m3	5 insoluble 1 soluble	10	0.1 (fume)	
ACGIH TLV mg/m3	5 insoluble 1 soluble	10 insoluble 3 soluble	0.2 (fume) 1 (dust & mists)	
NIOSH REL mg/m3	5	10	1	

8.2 Exposure Controls

Physical Plant Controls: Good plant ventilation and dust collection will help to prevent excessive dust in the plant atmosphere.

Personal Protection Measures:

EYE/FACE PROTECTION	Safety glasses should be used when appropriate. Full face protection, when needed, should be used.
SKIN PROTECTION	Protective gloves that are made of material impermeable and resistant to the materials with which they are working. In most cases, the gloves will be made of PVC, butyl, rubber, or neoprene.
RESPIRATORY PROTECTION	If the plant is well-ventilated, it will not be necessary. Because grinding dust is generated, a P-series particulate respirator may be needed under extreme conditions.
VENTILATION	The work area should be adequately ventilated to ensure dust levels in the air are below the required TLV and PEL levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Copper colored
Odor:	Odorless
Odor threshold:	Not applicable
pH Value:	Not applicable

Change in Condition	Tungsten	Copper
Melting point/range	3390-3423°C	1085°C
Boiling point/range	5555-5700°C	2562°C
Flash point	Not applicable	
Evaporation Rate	Not applicable	
Flammability	Non-Flammable	
Explosion limits	Not applicable	
Vapor pressure	Not applicable	
Vapor density	Not applicable	
Relative density	12.00-16.40 g/cm^3	
Solubility in Water	Insoluble	
Partition Coefficient	Not applicable	
Auto Ignition	Not applicable (to small particle size)	

Decomposition	Tungsten	Copper
Temperature	Above melting	Above melting
	3390-3423°C	1085°C
Viscosity	Not applicable	
Explosive Properties	Not Explosive	
Oxidizing Properties	Not Oxidizing	

10. STABILITY AND REACTIVITY

10.1 Reactivity	Non-reactive
10.2 Chemical Stability	Stable Chemically
10.3 Possibility of Hazardous Reactions	Not applicable
10.4 Conditions to Avoid	Accumulation of grinding dust
10.5 Incompatible Materials	Avoid Alkalis & Acids
10.6 Hazardous Decomposition Products	Toxic Metal Oxide Smoke or Fumes

11. TOXICOLOGICAL INFORMATION

Copper-Tungsten products, as processed, do not present a health hazard.

Point of Interest
Tungsten compounds are considered somewhat toxic, however, the product itself does not constitute an important health hazard. On the other hand, excessive or chronic exposure to copper dust can irritate the respiratory tract, eyes, mouth, or skin. This can cause headaches, dizziness, nausea and diarrhea. Ingestion of excessive amounts may cause gastrointestinal problems or even liver damage. Neither Tungsten nor Copper is classified as carcinogenic.

12. ECOLOGICAL INFORMATION

Copper-Tungsten products do not present an environmental hazard as produced.

12.1 Persistence and Degradability	Not applicable
12.2 Bioaccumulative potential	Not applicable
12.3 Mobility in soil	Not applicable
12.4 Results of PBT & vPvB Assessment	Not applicable
12.5 Other Adverse Effects	None known

13. DISPOSAL CONSIDERATIONS

The constituents of Copper-Tungsten are valuable in their own right. Efforts should be taken to find local, state, and federally approved reclamation and recycling companies. Should not enough Copper-Tungsten be available for recycling, check with your local, state, and federal regulations for proper disposal procedures.

14. TRANSPORTATION INFORMATION

Copper-Tungsten product is neither classified nor regulated.

15. REGULATORY INFORMATION

15.1 Safety, Health, and Environmental Regulations/Legislation Specific for the Substance or Article

National Regulations: See 40 CFR 372 for reporting requirements.

U.S. Superfund Amendments and Reauthorizations Act (SARA) Title III

SARA (311/312) Hazardous Categories

SARA 313: This product contains the following SARA 313 Toxic Chemical Listing

Chemical Name	CAS Number	Concentration
Copper	7440-50-8	>1%

TSCA: The components in the material (Copper-Tungsten) are registered under the Toxic Substance Control Act.

15.2 Chemical Safety Assessment

Neither CSR (Chemical Safety Reports) nor CSA (Chemical Safety Assessments) are required.

16. OTHER INFORMATION

Specifications and other information presented in this document are for information purposes only. Southern Copper & Supply Company, Inc. has compiled this document to the best of its present knowledge and understanding, and the document is subject to change without notice. Nothing herein shall constitute a warranty or guarantee for any specific product feature or establish any kind of contractual relationship. No liability of any errors, facts, or opinions is accepted. Southern Copper shall not be liable for any direct, indirect, incidental, or consequential loss or damage caused by, or arising from, reliance on all or any part of this document. Health and safety precautions in this document may not be adequate for all entities, individuals and/or situations.

Employer Responsibilities

Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace. This may be done in many ways. For example, employers may keep the SDSs in a binder or on computers as long as the employees have immediate access to the information without leaving their work area when needed and a back-up is available for rapid access to the SDS in the case of a power outage or other emergency. Furthermore, employers may want to designate a person(s) responsible for obtaining and maintaining the SDSs. If the employer does not have an SDS, the employer or designated person(s) should contact the manufacturer to obtain one.

References

OSHA, 29 CFR 1910.1200(g) and Appendix D. United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), third revised edition, United Nations, 2009. These references and other information related to the revised Hazard Communication Standard can be found on OSHA's Hazard Communication Safety and Health Topics page, located at: http://www.osha.gov/dsg/hazcom/index.html.

Disclaimer: This brief provides a general overview of the safety data sheet requirements in the Hazard Communication Standard (see 29 CFR 1910.1200(g) and Appendix D of 29 CFR 1910.1200). It does not alter or determine compliance responsibilities in the standard or the Occupational Safety and Health Act of 1970. Since interpretations and enforcement policy may change over time, the reader should consult current OSHA interpretations and decisions by the Occupational Safety and Health Review Commission and the courts for additional guidance on OSHA compliance requirements. Please note that states with OSHA-approved state plans may have additional requirements for chemical safety data sheets, outside of those outlined above. For more information on those standards, please visit: http://www.osha.gov/dcsp/osp/statestandards.html.

This is one in a series of informational briefs highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

This is a true copy of the information supplied to Southern Copper from the manufacturing companies for which we distribute their material and the regulations set forth by the United States Department of Labor from which this SDS template was created from: https://www.osha.gov/Publications/OSHA3514.html#footnote1.