SECTION 1. IDENTIFICATION

Product Identifier: (2N) 99% Copper Sputtering Target

Product Code: CU-M-02-ST

CAS Number: 7440-50-8

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:
+1 800-424-9300

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
N/A

Information concerning particular hazards for human and environment:
No data available
Hazard not otherwise classified
No data available

Label elements
Labelling according to Regulation (EC) No 1272/2008
N/A
Hazard pictograms
N/A
Signal word
N/A
Hazard statements
N/A
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: N/A
vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS No. / Substance Name:
7440-50-8 Copper
Identification number(s):
EC number: 231-159-6

SECTION 4. FIRST AID MEASURES

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

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:
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 official permits.
Do not allow product to enter drains, sewage systems, or other water courses.
Do not allow material to penetrate the ground or soil.
Methods and materials for containment and cleanup:
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.

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
Requirements to be met by storerooms and receptacles:
No special requirements.
Information about storage in one common storage facility:
No data available
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well-sealed containers.
Specific end use(s)
No data available

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$^3$ as Cu *dusts and mists **fume
REL (USA) Long-term value: 1* 0.1** mg/m$^3$ as Cu *dusts and mists **fume
TLV (USA) Long-term value: 1* 0.2** mg/m$^3$ *dusts and mists; **fume; as Cu
EL (Canada) Long-term value: 1* 0.2** mg/m$^3$ *dusts and mists; **fume
EV (Canada) Long-term value: 0.2* 1** mg/m³ as copper, *fume,**dust and mists
Additional information: No data

Exposure controls
Personal protective equipment
Follow typical protective and hygienic practices for handling chemicals.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Not required.
Protection of hands: Not required.
Penetration time of glove material (in minutes)
No data available
Eye protection: Safety glasses
Body protection: Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance:
Form: Solid in various forms
Color: Copper colored
Odor: Odorless
Odor threshold: No data available.
pH: N/A
Melting point/Melting range: 1083 °C (1981 °F)
Boiling point/Boiling range: 2562 °C (4644 °F)
Sublimation temperature / start: No data available
Flammability (solid, gas): No data available.
Ignition temperature: No data available
Decomposition temperature: No data available
Autoignition: No data available
Danger of explosion: No data available
Explosion limits:
Lower: No data available
Upper: No data available
Vapor pressure at 20 °C (68 °F): 0 hPa
Density at 20 °C (68 °F): 8.94 g/cm³ (74.604 lbs/gal)
Relative density: No data available.
Vapor density: N/A
Evaporation rate: N/A
Solubility in Water (H₂O): Insoluble
Partition coefficient (n-octanol/water): No data available.
Viscosity:
Dynamic: N/A
Kinematic: N/A
Other information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
化工稳定性
在推荐的存储条件下稳定
热分解/应避免的条件：
分解不会发生，如果按照规格使用和存储。
有可能危及反应：
没有危及反应已知
条件应避免：
没有数据可提供
不相容材料：
没有数据可提供
危险分解产物：
铜氧化物

SECTION 11. TOXICOLOGICAL INFORMATION

信息在毒理学效应
急性毒性：
《化学物质的毒性效应注册表》(RTECS)包含此物质的急性毒性数据。
LD/LC50值，适用于分类：
口LD50 >5000 mg/kg (mouse)
皮肤刺激或腐蚀：无刺激作用。
眼睛刺激或腐蚀：无刺激作用。
致敏性：无致敏作用已知。
生殖细胞的致突变性：无已知的致突变性。
致癌性：
EPA-D: 不能作为与人类致癌性相比较的物质：人类和动物缺乏证据表明其可导致致癌性，或没有数据。
《化学物质的毒性效应注册表》(RTECS)包含该物质的肿瘤性/致癌性和/或肿瘤性数据。
生殖毒性：
《化学物质的毒性效应注册表》(RTECS)包含该物质的生殖数据。
特定目标器官系统毒性-重复暴露：无已知的效应。
特定目标器官系统毒性-单一暴露：无已知的效应。
气道危险：无已知的效应。
亚急性和慢性毒性：无已知的效应。
附加毒理学信息：
据我们所知，该物质的急性和慢性毒性尚未完全了解。
致癌性分类
OSHA-Ca (Occupational Safety & Health Administration)
物质未列出。

SECTION 12. ECOLOGICAL INFORMATION

毒性
水生毒性：
没有数据可提供
持久性和可降解性：
没有数据可提供
生物累积潜力：
没有数据可提供
Mobility in soil
No data available

Additional ecological information:
Do not allow material to be released to the environment without official permits.
Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.
Avoid transfer into the environment.

Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation
Consult official regulations to ensure proper disposal.

Uncleaned packagings:
Recommendation:
Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, ADN, IMDG, IATA
N/A

UN proper shipping name
DOT, ADN, IMDG, IATA
N/A

Transport hazard class(es)
DOT, ADR, ADN, IMDG, IATA
Class
N/A

Packing group
DOT, IMDG, IATA
N/A

Environmental hazards:
Marine pollutant (IMDG):
Yes (PP)
Yes (P)

Special precautions for user
N/A

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N/A

Transport/Additional information:
DOT

Marine Pollutant (DOT):
No
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

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 invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2019 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.