1 Identification

· Product name: Conductive Mounting Powder, Copper-based
· Part number: 155-10010
· Application of the substance / the mixture: Thermoset molding
· Details of the supplier of the safety data sheet
· Manufacturer/Supplier:
  Allied High Tech Products Inc.
  2376 East Pacifica Place
  USA-RANCHO DOMINGUEZ, CA 90220
  USA
  info@alliedhihtech.com
· Information department: Product safety department
· Emergency telephone number:
  During normal opening times: +1 (310) 635-2466
  Chemtrec: +1 (202) 483-7616

2 Hazard(s) identification

· Classification of the substance or mixture
  Combustible Dust: May form combustible dust concentrations in air.

· Label elements
· GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms: Void
· Signal word: Warning
· Hazard statements: May form combustible dust concentrations in air.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Hazardous components and components with occupational exposure limits:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8 copper</td>
<td>25-50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-hazardous components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulates, NOC</td>
</tr>
</tbody>
</table>

| Additional information: The specific chemical identity and/or exact percentage of the composition has been withheld as a trade secret.

4 First-aid measures

· Description of first aid measures
· After inhalation: Supply fresh air; consult doctor 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.
· After swallowing: If symptoms persist consult doctor.
Product name: Conductive Mounting Powder, Copper-based

- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: Eye irritation
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

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5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - Alcohol resistant foam
  - Carbon dioxide
  - Fire-extinguishing powder
  - Water spray
  - Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture
  - At temperatures above 250°C, the following can be emitted:
    - Carbon monoxide (CO)
    - Hydrogen cyanide (HCN)
- Advice for firefighters
- Protective equipment: Wear fully protective suit.

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6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- 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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7 Handling and storage

- Handling:
  - Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.
  - Information about protection against explosions and fires:
    - Dust generated from the substrate during use of this product may be explosive if in sufficient concentration with an ignition source.
    - Protect against electrostatic charges.
    - Keep ignition sources away - Do not smoke.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store in a cool location.
    - No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Store receptacle in a well ventilated area.
  - Specific end use(s): No further relevant information available.

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8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters

<table>
<thead>
<tr>
<th>PEL</th>
<th>Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume</th>
</tr>
</thead>
</table>

(Contd. on page 3)
Product name: Conductive Mounting Powder, Copper-based

(Contd. of page 2)

<table>
<thead>
<tr>
<th>REL</th>
<th>Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV</td>
<td>Long-term value: 1* 0.2** mg/m³ *dusts and mists; **fume; as Cu</td>
</tr>
</tbody>
</table>

· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures: Wash hands before breaks and at the end of work.
· Breathing equipment:
  In case of dust formation, use respiratory equipment with filter type: Filter P1
· Protection of hands: Not required.
· Material of gloves Nitrile rubber, NBR
· Eye protection: Not required.

* 9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  Form: Powder
  Color: Dark orange color
  Odor: Odorless
  Odor threshold: Not determined.
· pH-value: Not applicable.
· Change in condition
  Melting point/Melting range: 90-130 °C (194-202 °F)
  Boiling point/Boiling range: Undetermined.
· Flash point: >250 °C (>482 °F)
· Flammability (solid, gaseous): Not determined.
· Ignition temperature: >400 °C (>752 °F)
· Decomposition temperature: Not determined.
· Auto igniting: Product is not selfigniting.
· Danger of explosion: Product does not present an explosion hazard.
· Explosion limits:
  Lower: Not determined.
  Upper: Not determined.
· Vapor pressure: Not applicable.
· Density at 20 °C (68 °F): 8-9 g/cm³ (66.76-75.105 lbs/gal)
· Relative density
· Vapor density
· Evaporation rate
· Solubility in / Miscibility with
  Water: Insoluble.
· Partition coefficient (n-octanol/water): Not determined.
· Viscosity:
  Dynamic: Not applicable.
  Kinematic: Not applicable.

(Contd. on page 4)
Product name: Conductive Mounting Powder, Copper-based

(Contd. of page 3)

| · Solvent content: | 0.00 % |
| · VOC content: | 0.00 % |
| · Solids content: | 100.0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

· Reactivity No further relevant information available.
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions
  As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
· Conditions to avoid
  Avoid creating dust as it may form an explosive mixture in the air.
  Keep away from oxidising agents and acidic substances.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products:
  Hydrogen cyanide (prussic acid)
  Styrene
  Hydrocarbons
  Aldehyde
  Acids
  Phenolic compounds
  Carbon monoxide and carbon dioxide
  At temperatures above 250°C, depolymerization and the release of starting monomers can arise.
· Additional information: Hazardous decomposition products may form during combustion.

11 Toxicological information

· Information on toxicological effects
· Acute toxicity:
  · Primary chemical irritant effect:
    · on the skin: No irritant effect.
    · on the eye: No irritating effect.
· Sensitization: No sensitizing effects known.
· Additional toxicological information:
  Abrasive eye irritant
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
· Carcinogenic categories
  · IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  · NTP (National Toxicology Program)
    None of the ingredients is listed.
  · OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

· Toxicity
  · Aquatic toxicity: No further relevant information available.
  · Persistence and degradability No further relevant information available.
· Behavior in environmental systems:
· Bioaccumulative potential No further relevant information available.
· Mobility in soil No further relevant information available.

(Contd. on page 5)
Product name: Conductive Mounting Powder, Copper-based

- Additional ecological information:
- General notes:
  Water hazard class 2 (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation: Contact waste processors for recycling information.

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

14 Transport information

- UN-Number
- DOT, ADN, IMDG, IATA: not regulated

- UN proper shipping name
- DOT: Environmentally hazardous substance, solid, n.o.s (copper)
- ADN, IMDG, IATA: not regulated

- Transport hazard class(es)
- DOT, ADN, IMDG, IATA: not regulated
- Class: not regulated

- Packing group
- DOT, IMDG, IATA: not regulated

- Environmental hazards:
- Marine pollutant: No

- Special precautions for user
- Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Not applicable.

- UN "Model Regulation": not regulated

15 Regulatory information

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

  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

  - Section 313 (Specific toxic chemical listings):
    7440-50-8 copper

  - TSCA (Toxic Substances Control Act):
    All other ingredients are exempt from listing.
    All components have the value ACTIVE.

- Hazardous Air Pollutants
  None of the ingredients is listed.
Product name: Conductive Mounting Powder, Copper-based

- **Proposition 65**
  - **Chemicals known to cause cancer:** None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:** None of the ingredients is listed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:** Kim Dermit
- **Last revision / supersedes version:** 06/10/2020 / 3.0
- **Supersedes date:** 04/30/2020

**Abbreviations and acronyms:**
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit

**Data compared to the previous version altered.**