1 Identification

· Product name: Conductive Mounting Powder, Graphite-based
· Part number: 155-20010, 155-20015
· 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@alliedhiightech.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
  GHS08 Health hazard
  Carc. 2 H351 Suspected of causing cancer.
  GHS07
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Irrit. 2A H319 Causes serious eye irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  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

  GHS07  GHS08

· Signal word Warning
Product name: Conductive Mounting Powder, Graphite-based

· Hazard-determining components of labeling:
  Carbon black
  methenamine

· Hazard statements
  Causes skin irritation.
  Causes serious eye irritation.
  May cause an allergic skin reaction.
  Suspected of causing cancer.
  May form combustible dust concentrations in air.

· Precautionary statements
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Contaminated work clothing must not be allowed out of the workplace.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If on skin: Wash with plenty of water.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  IF exposed or concerned: Get medical advice/attention.
  Specific treatment (see on this label).
  Take off contaminated clothing and wash it before reuse.
  If skin irritation or rash occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  Wash contaminated clothing before reuse.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

* 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>12001-26-2</td>
<td>Mica</td>
</tr>
<tr>
<td>1332-58-7</td>
<td>Kaolin</td>
</tr>
<tr>
<td>7782-42-5</td>
<td>Graphite</td>
</tr>
<tr>
<td>14807-96-6</td>
<td>Talc (Mg3H2(SiO3)4)</td>
</tr>
<tr>
<td></td>
<td>Wood flour</td>
</tr>
<tr>
<td></td>
<td>Coal dust</td>
</tr>
<tr>
<td>1333-86-4</td>
<td>Carbon black</td>
</tr>
<tr>
<td>100-97-0</td>
<td>methenamine</td>
</tr>
<tr>
<td></td>
<td>Self-heat. 2, H252;</td>
</tr>
<tr>
<td></td>
<td>Carc. 2, H351</td>
</tr>
<tr>
<td></td>
<td>Flam. Sol. 2, H228;</td>
</tr>
<tr>
<td></td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B, H314; Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331;</td>
</tr>
<tr>
<td></td>
<td>Muta. 2, H341; STOT RE 2, H373;</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>calcium dihydroxide</td>
</tr>
<tr>
<td>108-95-2</td>
<td>phenol</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331;</td>
</tr>
<tr>
<td></td>
<td>Muta. 2, H341; STOT RE 2, H373;</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B, H314; Skin Sens. 1, H317; Flam. Liq. 4, H227</td>
</tr>
</tbody>
</table>

· Non-hazardous components:

| 9003-35-4 | Phenolic Polymer | 25-50% |

· 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
- General information: Immediately remove any clothing soiled by the product.
- After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- 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
  Breathing difficulty
  Coughing
  Allergic reactions
  Dermatitis
  Eye irritation
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  Water spray
  Fire-extinguishing powder
  Alcohol resistant foam
  Carbon dioxide
  Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Avoid formation of dust.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 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.

7 Handling and storage

- Handling:
- Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:
  Store at temperatures not exceeding 30°C.
  Store only in the original receptacle.
- Information about storage in one common storage facility: Not required.
Product name: Conductive Mounting Powder, Graphite-based

- **Further information about storage conditions:**
  - Keep receptacle tightly sealed.
  - Store receptacle in a well ventilated area.
- **Specific end use(s)**: No further relevant information available.

### 8 Exposure controls/personal protection

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

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Material</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
</table>
| 12001-26-2 Mica | Long-term value: 20 mppcf ppm  
<1% crystalline silica | Long-term value: 3* mg/m³  
*respirable dust; containing < 1% quartz | Long-term value: 3* mg/m³  
*as respirable fraction |
| 1332-58-7 Kaolin | Long-term value: 15* 5** mg/m³  
*total dust **respirable fraction | Long-term value: 10* 5** mg/m³  
*total dust **respirable fraction | Long-term value: 2* mg/m³  
E; as respirable fraction |
| 7782-42-5 Graphite | Long-term value: 15 mppcf* mg/m³  
*impinger samples counted by light field techn. | Long-term value: 2.5* mg/m³  
*respirable dust | Long-term value: 2* mg/m³  
all forms except graphite fibers;*resp. fraction |
| 14807-96-6 Talc (Mg3H2(SiO3)4) | Long-term value: 20 mppcf ppm  
(containing <1% Quartz) | Long-term value: 2* mg/m³  
*respirable dust; and <1% Quartz | Long-term value: 2* mg/m³  
*as respirable fraction; E |
| Wood flour | Long-term value: 15 mg/m³ | Long-term value: 1 mg/m³ |
| Coal dust | Long-term value: 10 mg/m³ | Long-term value: 2 mg/m³ |
| 1333-86-4 Carbon black | Long-term value: 3.5 mg/m³ | Long-term value: 3.5* mg/m³  
*0.1 in presence of PAHs | Long-term value: 3* mg/m³  
*inhalable fraction |

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

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Chemical Name</th>
<th>Identify Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-97-0</td>
<td>methanamine</td>
<td>Long-term value: NIC-1* mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*inhalable fraction, NIC-A4, NIC-DSEN</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>calcium dihydroxide</td>
<td>Long-term value: 15* 5** mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*total dust **respirable fraction</td>
</tr>
<tr>
<td></td>
<td>Calcium carbonate</td>
<td>Long-term value: 5 mg/m³</td>
</tr>
<tr>
<td>108-95-2</td>
<td>phenol</td>
<td>Long-term value: 19 mg/m³, 5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 19 mg/m³, 5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling limit value: 60* mg/m³, 15.6* ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*15-min; Skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 19 mg/m³, 5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin; BEI</td>
</tr>
<tr>
<td>50-00-0</td>
<td>formaldehyde</td>
<td>Long-term value: 0.37 mg/m³, 0.3 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 0.12 mg/m³, 0.1 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DSEN; RSEN</td>
</tr>
</tbody>
</table>

**Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Chemical Name</th>
<th>Identify Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-95-2</td>
<td>phenol</td>
<td>BEI 250 mg/g creatinine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time: end of shift</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parameter: Phenol with hydrolysis (background, nonspecific)</td>
</tr>
</tbody>
</table>

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.

**Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

![Protective gloves](image)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 6)
Product name: Conductive Mounting Powder, Graphite-based

· Eye protection:
  
  Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties
  · General Information
  · Appearance:
    Form: Powder
    Color: Black
    Odor: Phenol-like
    Odor threshold: Not determined.
  · pH-value: Not applicable.
  · Change in condition
    Melting point/Melting range: Undetermined.
    Boiling point/Boiling range: Undetermined.
  · Flash point: Not applicable.
  · Flammability (solid, gaseous): Not determined.
  · 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:
    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.
  · Solvent content:
    Organic solvents: 0.4 %
    VOC content: 0.43 %
  · 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.
Product name: Conductive Mounting Powder, Graphite-based

- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid:
  Keep away from heat.
  Keep away from open flames. - No smoking.
  Keep away from oxidising agents and acidic substances.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products:
  Formaldehyde
  Phenol
  Ammonia
  Carbon monoxide and carbon dioxide
- Additional information: Hazardous decomposition products may form during combustion.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

<table>
<thead>
<tr>
<th>LD/LC50 values that are relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE (Acute Toxicity Estimate)</td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
</tbody>
</table>

1333-86-4 Carbon black
- Oral LD50 10,000 mg/kg (rat)

1305-62-0 calcium dihydroxide
- Oral LD50 7,340 mg/kg (rat)

108-95-2 phenol
- Oral LD50 317 mg/kg (rat)
- Dermal LD50 850 mg/kg (rabbit)
- Inhalative LC50/4 h 0.5 mg/l (ATE)

50-00-0 formaldehyde
- Oral LD50 >200 mg/kg (rat)
- Dermal LD50 270 mg/kg (rabbit)
- Inhalative LC50/4 h 3 mg/l (ATE)

- Primary chemical irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritating effect.
  - Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:
  - Carcinogenic categories

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14807-96-6 Talc (Mg3H2(SiO3)4)</td>
</tr>
<tr>
<td>1333-86-4 Carbon black</td>
</tr>
<tr>
<td>108-95-2 phenol</td>
</tr>
<tr>
<td>50-00-0 formaldehyde</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NTP (National Toxicology Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-00-0 formaldehyde</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA-Ca (Occupational Safety &amp; Health Administration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-00-0 formaldehyde</td>
</tr>
</tbody>
</table>
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.
- Additional ecological information:
  - General notes:
    - Water hazard class 1 (Self-assessment): slightly hazardous for water
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 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, ADN, IMDG, IATA: Not regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: Not regulated
- Class
  - DOT, ADN, IMDG, IATA: 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):
    - 108-95-2 phenol
    - 50-00-0 formaldehyde
  - Section 313 (Specific toxic chemical listings):
    - 108-95-2 phenol

(Contd. on page 9)
Product name: Conductive Mounting Powder, Graphite-based

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-00-0</td>
<td>Formaldehyde</td>
<td></td>
</tr>
</tbody>
</table>

· **TSCA (Toxic Substances Control Act):**
  All other ingredients are exempt from listing.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>9003-35-4</td>
<td>Phenolic Polymer</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>1332-58-7</td>
<td>Kaolin</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>7782-42-5</td>
<td>Graphite</td>
<td>ACTIVE</td>
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<tr>
<td>100-97-0</td>
<td>Methenamine</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>Calcium dihydroxide</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>108-95-2</td>
<td>Phenol</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>50-00-0</td>
<td>Formaldehyde</td>
<td>ACTIVE</td>
</tr>
</tbody>
</table>

· **Hazardous Air Pollutants**

<table>
<thead>
<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
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<td>108-95-2</td>
<td>Phenol</td>
</tr>
<tr>
<td>50-00-0</td>
<td>Formaldehyde</td>
</tr>
</tbody>
</table>

· **Proposition 65**

· **Chemicals known to cause cancer:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1333-86-4</td>
<td>Carbon black</td>
</tr>
<tr>
<td>50-00-0</td>
<td>Formaldehyde</td>
</tr>
</tbody>
</table>

· **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 / superseded version:** 06/16/2020 / 4.0
· **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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - 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
  - BEI: Biological Exposure Limit
  - Flam. Liq. 4: Flammable liquids – Category 4
  - Flam. Sol. 2: Flammable solids – Category 2
  - Self-heat. 2: Self-heating substances and mixtures – Category 2

(Contd. on page 10)
Product name: Conductive Mounting Powder, Graphite-based

Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1B: Carcinogenicity – Category 1B
Carc. 2: Carcinogenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.