

Safety Data Sheet acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

1 Identification

- **Product name:** Conductive Mounting Powder, Graphite-based
- **Part number:** 155-20010, -20015, -20020
- **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@alliedhightech.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

Muta. 2 H341 Suspected of causing genetic defects.
Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Combustible Dust May form combustible dust concentrations in air.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 1)

· **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

calcium dihydroxide

Talc (Mg₃H₂(SiO₃)₄)

methenamine

phenol

· **Hazard statements**

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May cause damage to organs through prolonged or repeated exposure.

May form combustible dust concentrations in air.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 2)

· HMIS-ratings (scale 0 - 4)

HEALTH	*1	Health = *1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

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

· Hazardous Components:

12001-26-2	Mica	10-<25%
	Wood flour	10-<25%
7782-42-5	Graphite	10-<25%
1332-58-7	Kaolin	10-<25%
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	2.5-<10%
	☠ Carc. 2, H351	
	Coal dust	2.5-<10%
100-97-0	methenamine	2.5-<10%
	☠ Flam. Liq. 1, H224; Flam. Sol. 2, H228; ☠ Skin Sens. 1, H317	
1333-86-4	Carbon black	2.5-<10%
	☠ Self-heat. 2, H252; ☠ Carc. 2, H351	
1305-62-0	calcium dihydroxide	2.5-<10%
	☠ Skin Corr. 1B, H314; Eye Dam. 1, H318	
108-95-2	phenol	1-≤2.5%
	☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; STOT RE 2, H373; ☠ Skin Corr. 1B, H314	
50-00-0	formaldehyde	<0.1%
	☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☠ Skin Corr. 1B, H314; ☠ Skin Sens. 1, H317	

· Non-hazardous Components:

9003-35-4	Phenolic Polymer	10-<25%
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4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **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.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 3)

- **After eye contact:** Rinse opened eye for several minutes under running water. Then 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.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
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**
Thorough dedusting.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store receptacle in a well ventilated area.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 4)

· **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**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

12001-26-2 Mica

PEL	Long-term value: 20 mppcf ppm <1% crystalline silica
REL	Long-term value: 3* mg/m ³ *respirable dust; containing < 1% quartz
TLV	Long-term value: 3* mg/m ³ *as respirable fraction

Wood flour

PEL	Long-term value: 15 mg/m ³
TLV	Long-term value: 5 mg/m ³

7782-42-5 Graphite

PEL	Long-term value: 15 mppcf* mg/m ³ *impinger samples counted by light field techn.
REL	Long-term value: 2.5* mg/m ³ *respirable dust
TLV	Long-term value: 2* mg/m ³ all forms except graphite fibers; *resp. fraction

1332-58-7 Kaolin

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 2* mg/m ³ E; as respirable fraction

14807-96-6 Talc (Mg3H2(SiO3)4)

PEL	Long-term value: 20 mppcf ppm (containing <1% Quartz)
REL	Long-term value: 2* mg/m ³ *respirable dust; and <1% Quartz
TLV	Long-term value: 2* mg/m ³ *as respirable fraction; E

Coal dust

PEL	Long-term value: 10 mg/m ³
TLV	Long-term value: 2 mg/m ³

(Contd. on page 6)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 5)

1333-86-4 Carbon black

PEL	Long-term value: 3.5 mg/m ³
REL	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV	Long-term value: 3* mg/m ³ *inhalable fraction

1305-62-0 calcium dihydroxide

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 5 mg/m ³
TLV	Long-term value: 5 mg/m ³

108-95-2 phenol

PEL	Long-term value: 19 mg/m ³ , 5 ppm Skin
REL	Long-term value: 19 mg/m ³ , 5 ppm Ceiling limit value: 60* mg/m ³ , 15.6* ppm *15-min; Skin
TLV	Long-term value: 19 mg/m ³ , 5 ppm Skin; BEI

50-00-0 formaldehyde

PEL	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
REL	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
TLV	Ceiling limit value: 0.37 mg/m ³ , 0.3 ppm DSEN; RSEN

· Ingredients with biological limit values:**108-95-2 phenol**

BEI	250 mg/g creatinine Medium: urine Time: end of shift Parameter: Phenol with hydrolysis (background, nonspecific)
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **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 skin.
- Avoid contact with the eyes and skin.

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

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 6)

· **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

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.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **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.

· **Ignition temperature:**

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.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 7)

· 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:	1.1 %
VOC content:	1.1 %
	0.0 g/l / 0.00 lb/gl
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** 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 from resulting vapor after decomposition.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimates)

Oral	LD50	30667 mg/kg (rat)
Dermal	LD50	82229 mg/kg (rabbit)
Inhalative	LC50/4 h	48.4 mg/l

108-95-2 phenol

Oral	LD50	317 mg/kg (rat)
Dermal	LD50	850 mg/kg (rabbit)

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 8)

Inhalative	LC50/4 h	0.5 mg/l (ATE)
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- **Primary chemical irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	2B
1333-86-4	Carbon black	2B
108-95-2	phenol	3
50-00-0	formaldehyde	1

- **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
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- **OSHA-Ca (Occupational Safety & Health Administration)**

50-00-0	formaldehyde	
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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.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **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

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 9)

· **UN proper shipping name**
· **DOT, ADN, IMDG, IATA** not regulated

· **Transport hazard class(es)**
· **DOT, IMDG, IATA**
· **Class** not regulated
· **Label** -
· **ADN/R 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):**

108-95-2	phenol
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50-00-0	formaldehyde
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· **Section 313 (Specific toxic chemical listings):**

108-95-2	phenol
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50-00-0	formaldehyde
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· **TSCA (Toxic Substances Control Act):**

9003-35-4	Phenolic Polymer
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7782-42-5	Graphite
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1332-58-7	Kaolin
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14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)
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100-97-0	methenamine
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1333-86-4	Carbon black
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1305-62-0	calcium dihydroxide
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108-95-2	phenol
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50-00-0	formaldehyde
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· **Proposition 65**

· **Chemicals known to cause cancer:**

1333-86-4	Carbon black
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50-00-0	formaldehyde
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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 10)

· **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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

108-95-2	phenol	D, I
50-00-0	formaldehyde	B1

· **TLV (Threshold Limit Value established by ACGIH)**

1332-58-7	Kaolin	A4
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	A4
1333-86-4	Carbon black	A4
108-95-2	phenol	A4
50-00-0	formaldehyde	A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4	Carbon black
50-00-0	formaldehyde

· **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

· **Date of preparation / last revision** 04/04/2016 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 1: Flammable liquids – Category 1

Flam. Sol. 2: Flammable solids – Category 2

Self-heat. 2: Self-heating substances and mixtures – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

(Contd. on page 12)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/04/2016

Reviewed on 04/04/2016

Product name: Conductive Mounting Powder, Graphite-based

(Contd. of page 11)

*Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**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*

US