

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

1 Identification

- **Product name:** Diamond Wafering Blades
- **Part number:**
60-10040, 60-10045, 60-30065,
60-30070, 60-40070, 60-40075
60-20065 - 60-20104
- **Application of the substance / the mixture** Abrasive blade
- **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

- | | | |
|---------------|------|--|
| Resp. Sens. 1 | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Muta. 2 | H341 | Suspected of causing genetic defects. |
| Carc. 2 | H351 | Suspected of causing cancer. |
| Repr. 1A | H360 | May damage fertility or the unborn child. |
| STOT RE 1 | H372 | Causes damage to the gastro-intestinal tract through prolonged or repeated exposure. |



GHS09 Environment

- | | | |
|-------------------|------|--|
| Aquatic Chronic 2 | H411 | Toxic to aquatic life with long lasting effects. |
|-------------------|------|--|



GHS07

- | | | |
|-----------------|------|--------------------------------------|
| Skin Sens. 1 | H317 | May cause an allergic skin reaction. |
| Aquatic Acute 2 | H401 | Toxic to aquatic life. |

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 1)

Additional information:

Based on health effects for dust

All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk.

Label elements

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

Hazard pictograms

GHS08 GHS09

Signal word Danger

Hazard-determining components of labeling:

cobalt

nickel powder (particle diameter < 1 mm)

lead

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May damage fertility or the unborn child.

Causes damage to the gastro-intestinal tract through prolonged or repeated exposure.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Precautionary statements

Obtain special instructions before use.

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

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

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

[In case of inadequate ventilation] wear respiratory protection.

If on skin: Wash with plenty of water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

Collect spillage.

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.

Hazardous components and components with occupational exposure limits:

409-21-2	silicon carbide	25-50%
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(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 2)

7440-50-8	copper	10-25%
1314-13-2	zinc oxide	2.5-<10%
	⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
7440-33-7	tungsten	1-10%
7440-48-4	cobalt	1-10%
	⚠ Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1B, H350; Repr. 1B, H360; ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	
7440-02-0	nickel powder (particle diameter < 1 mm)	2.5-<10%
	⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317; Aquatic Chronic 3, H412	
7440-31-5	tin	1-10%
7440-47-3	chromium	1-10%
7439-92-1	lead	0.1-≤1%
	⚠ Carc. 2, H351; Repr. 1A, H360	
· Non-hazardous components:		
7439-89-6	iron	25-50%
9003-35-4	Phenolic Polymer	25-50%
7782-40-3	Diamond	1-10%

· **Additional information:**

Product may contain many or all of the above ingredients.

The diamond concentration stated is for the high concentration, diamond metal bond blades. The diamond concentration for the low concentration blades is between 0.1 -< 1%.

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:**

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.· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** If symptoms persist consult doctor.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed**

Breathing difficulty

Eye irritation

Coughing

Allergic reactions

Dermatitis

Dermatitis

· **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

Carbon dioxide

Alcohol resistant foam

Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 3)

- **Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.

* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Ensure adequate ventilation
 - Keep away from ignition sources
- **Environmental precautions:**
 - Do not allow product to reach sewage system or any water course.
 - Do not allow to enter sewers/ surface or ground water.
 - Inform respective authorities in case of seepage into water course or sewage system.
- **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:** No special measures required.
- **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:**
 - 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**

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

409-21-2 silicon carbide

PEL	Long-term value: 15* 5** mg/m ³ fibrous dust: *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 10* 3** mg/m ³ fibrous dust:0.1 f/cc; nonfibrous:*inh.,**resp.

7440-50-8 copper

PEL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
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(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 4)

REL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
TLV	Long-term value: 1* 0.2** mg/m ³ *dusts and mists; **fume; as Cu
1314-13-2 zinc oxide	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction and fume
REL	Short-term value: 10** mg/m ³ Long-term value: 5 mg/m ³ Ceiling limit value: 15* mg/m ³ *dust only **fume
TLV	Short-term value: 10* mg/m ³ Long-term value: 2* mg/m ³ *as respirable fraction
7440-33-7 tungsten	
PEL	and insoluble compounds, as We
REL	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as W
TLV	Long-term value: 3* mg/m ³ as W; * respirable fraction
7440-48-4 cobalt	
PEL	Long-term value: 0.1* mg/m ³ as Co; *for metal dust and fume
REL	Long-term value: 0.05 mg/m ³ as Co; metal dust & fume
TLV	Long-term value: 0.02* mg/m ³ *inh. fraction; DSEN, RSEN, BEI
7440-02-0 nickel powder (particle diameter < 1 mm)	
PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 0.015 mg/m ³ as Ni
TLV	Long-term value: 1.5* mg/m ³ elemental, *inhalable fraction
7440-31-5 tin	
PEL	Long-term value: 2 mg/m ³ metal
REL	Long-term value: 2 mg/m ³
TLV	Long-term value: 2 mg/m ³ metal
7440-47-3 chromium	
PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 0.5* mg/m ³ *metal+inorg.compds.as Cr
TLV	Long-term value: 0.003* 0.5** mg/m ³ inh. fraction, *as Cr(III),**metal

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 5)

7439-92-1 lead	
PEL	Long-term value: 0.05* mg/m ³ *see 29 CFR 1910.1025
REL	Long-term value: 0.05* mg/m ³ *8-hr TWA
TLV	Long-term value: 0.05* mg/m ³ *and inorganic compounds, as Pb; BEI
· Ingredients with biological limit values:	
7440-48-4 cobalt	
BEI	15 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Cobalt (background)
	1 µg/L Medium: blood Time: end of shift at end of workweek Parameter: Cobalt (background, semi-quantitative)
7439-92-1 lead	
BEI	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead
	10 µg/100 ml Medium: blood Time: not critical Parameter: Lead (women of child bearing potential)

· 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.

· 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

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.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 6)

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
· Form:	Solid
· Color:	According to product specification
· Odor:	Odorless
· 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:	
· 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** No dangerous reactions known.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 7)

- **Conditions to avoid**

Freezing conditions

Keep away from heat.

Keep away from sources of ignition - No smoking.

Keep away from open flames. - No smoking.

- **Incompatible materials:** No further relevant information available.

- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

ATE (Acute Toxicity Estimate)		
Oral	LD50	>6,667 mg/kg (rat)
Dermal	LD50	>6,667 mg/kg (rat)

409-21-2 silicon carbide		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

1314-13-2 zinc oxide		
Oral	LD50	>5,000 mg/kg (rat)

7440-48-4 cobalt		
Oral	LD50	6,170 mg/kg (rat)

7440-02-0 nickel powder (particle diameter < 1 mm)		
Dermal	LD50	>5,000 mg/kg (rat)

- **Primary chemical irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **Additional toxicological information:**

Abrasive eye irritant

Abrasive skin irritant

- **Carcinogenic categories**

IARC (International Agency for Research on Cancer)		
409-21-2	silicon carbide	2A
7440-48-4	cobalt	2B
7440-02-0	nickel powder (particle diameter < 1 mm)	2B
7440-47-3	chromium	3
7439-92-1	lead	2B

NTP (National Toxicology Program)		
7440-48-4	cobalt	R
7440-02-0	nickel powder (particle diameter < 1 mm)	R
7439-92-1	lead	R

OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 8)

*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.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **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 · Class	not regulated
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards: · Marine pollutant:	No Yes (DOT)
· 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

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 9)

*15 Regulatory information

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

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

· Section 313 (Specific toxic chemical listings):
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7440-50-8	copper
1314-13-2	zinc oxide
7440-48-4	cobalt
7440-02-0	nickel powder (particle diameter < 1 mm)
7440-47-3	chromium
7439-92-1	lead

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

7440-48-4	cobalt
7439-92-1	lead

· Proposition 65

· Chemicals known to cause cancer:

7440-48-4	cobalt
7440-02-0	nickel powder (particle diameter < 1 mm)
7439-92-1	lead

· Chemicals known to cause reproductive toxicity for females:
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7439-92-1	lead
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· Chemicals known to cause reproductive toxicity for males:
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7439-92-1	lead
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· Chemicals known to cause developmental toxicity:

7439-92-1	lead
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· National regulations:

- **Additional classification according to Decree on Hazardous Materials:** Carcinogenic hazardous material group III (dangerous).
- **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:** 06/08/2020 / 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

(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/08/2020

Version 4.1

Last revision 06/08/2020

Product name: Diamond Wafering Blades

(Contd. of page 10)

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Resp. Sens. 1: Respiratory sensitisation – 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

Repr. 1A: Reproductive toxicity – Category 1A

Repr. 1B: Reproductive toxicity – Category 1B

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

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