Safety Data Sheet
acc. to OSHA HCS

Printing date 07/02/2024 *Version 4.0* *Last revision 06/01/2024*

* 1 Identification

· **Product name: Silicon Carbide Cut-Off & Wafering Blades, Resin Bond**

· **Part number:**
80-10045
80-11400 - 80-11810
80-30045 - 80-30060
80-40045 - 80-40065
80-50045 - 80-50065

· **Application of the substance / the mixture** Abrasive blade

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Allied High Tech Products Inc.
16207 Carmenita Road
USA-Cerritos, CA, 90703
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

Carcinogenicity 2	H351 Suspected of causing cancer. Route of exposure: Inhalation.
Specific Target Organ Toxicity - Repeated Exposure 1	H372 Causes damage to the lung and the bones through prolonged or repeated exposure.

GHS07

Skin Irritation 2	H315 Causes skin irritation.
Eye Irritation 2A	H319 Causes serious eye irritation.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

· **Additional information:**
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).

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Product name: Silicon Carbide Cut-Off & Wafering Blades, Resin Bond

(Contd. of page 1)

· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
trisodium hexafluoroaluminate
titanium dioxide

· **Hazard statements**
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer. Route of exposure: Inhalation.
Causes damage to the lung and the bones through prolonged or repeated exposure.
Harmful 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.
Avoid release to the environment.
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).
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
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	50-60%
13775-53-6	trisodium hexafluoroaluminate	10%
	Specific Target Organ Toxicity - Repeated Exposure 1, H372; Aquatic Chronic 2, H411; Acute Toxicity - Inhalation 4, H332	
1309-37-1	diiron trioxide	5-10%
7789-75-5	calcium fluoride	5-10%
15096-52-3	cryolite	2.5-<5%
	Aquatic Chronic 2, H411; Acute Toxicity - Inhalation 4, H332	
8002-74-2	Paraffin waxes and Hydrocarbon waxes	1-5%
14075-53-7	potassium tetrafluoroborate	1-5%
	Acute Toxicity - Oral 3, H301; Skin Irritation 2, H315; Eye Irritation 2A, H319	

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 2)

1305-62-0	calcium dihydroxide Skin Corrosion 1B, H314; Eye Damage 1, H318	≤1%
1305-78-8	calcium oxide Eye Damage 1, H318	≤1%
13463-67-7	titanium dioxide Carcinogenicity 2, H351	0.1-≤1%

· **Non-hazardous components:**		
12068-85-8	Iron Disulphide	5-10%
	Polymeric Resin (cured)	5-10%
	Epoxy (cured)	5-10%
1314-98-3	zinc sulphide	1-5%

· **Additional information:**
Product may contain many or all of the above ingredients.
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.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:** 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
Eye irritation
Coughing
Dermatitis
Eye irritation
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:** 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.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Keep away from ignition sources
· **Environmental precautions:**
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:**
Pick up mechanically.
Dispose contaminated material as waste according to section 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.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 3)

See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure proper ventilation/exhaustion at workplaces.
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:** Store away from foodstuffs.
· **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 additional data. See 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.

409-21-2 silicon carbide	
PEL	Long-term value: 15* 5** mg/m³ fibrous dust: *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction
TLV	Long-term value: 10* 3** mg/m³ fibrous dust:0.1 f/cc A2, nonfibrous:*inh.,**resp.
1309-37-1 diiron trioxide	
PEL	Long-term value: 10* mg/m³ *Fume
REL	Long-term value: 5 mg/m³ Dust & fume, as Fe
TLV	Long-term value: 5* mg/m³ *Respirable particulate matter, A4
7789-75-5 calcium fluoride	
PEL	Long-term value: 2.5 mg/m³ as F
REL	Long-term value: 2.5 mg/m³ as F
TLV	Long-term value: 2.5 mg/m³ as F, A4; BEI
15096-52-3 cryolite	
PEL	Long-term value: 2.5 mg/m³ as F
REL	Long-term value: 2.5 mg/m³ as F

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Product name: Silicon Carbide Cut-Off & Wafering Blades, Resin Bond

(Contd. of page 4)

8002-74-2 Paraffin waxes and Hydrocarbon waxes	
REL	Long-term value: 2 mg/m³
TLV	Long-term value: 2 mg/m³
14075-53-7 potassium tetrafluoroborate	
PEL	Long-term value: 2.5 mg/m³ as F
REL	Long-term value: 2.5 mg/m³ as F
TLV	Long-term value: 2.5 mg/m³ as F, A4; BEI
1305-62-0 calcium dihydroxide	
PEL	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction
REL	Long-term value: 5 mg/m³
TLV	Long-term value: 5 mg/m³
1305-78-8 calcium oxide	
PEL	Long-term value: 5 mg/m³
REL	Long-term value: 2 mg/m³
TLV	Long-term value: 2 mg/m³
13463-67-7 titanium dioxide	
PEL	Long-term value: 15* mg/m³ *total dust
REL	See Pocket Guide App. A
TLV	Long-term value: 0.2* 2.5** mg/m³ resp. fraction, *nanoscale,**finescale, A3

· **Ingredients with biological limit values:**

7789-75-5 calcium fluoride	
BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific) 3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)
15096-52-3 cryolite	
BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific) 3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/02/2024 *Version 4.0* *Last revision 06/01/2024*

Product name: Silicon Carbide Cut-Off & Wafering Blades, Resin Bond

(Contd. of page 5)

14075-53-7 potassium tetrafluoroborate	
BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific) 3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)

· **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:**


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**
Leather 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.
· **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.

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 6)

· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	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.
· **Conditions to avoid** Keep away from oxidising agents and acidic substances.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:**
Silicon oxides
Carbon monoxide and carbon dioxide
· **Additional information:** Hazardous decomposition products may form during combustion.

11 Toxicological information

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

· **LD/LC50 values that are relevant for classification:**		
ATE (Acute Toxicity Estimate)		
Oral	LD50	6,500 mg/kg
Inhalative	LC50/4 h	10 mg/l

409-21-2 silicon carbide		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
13775-53-6 trisodium hexafluoroaluminate		
Inhalative	LC50/4 h	1.5 mg/l (ATE)

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 7)

1309-37-1 diiron trioxide		
Oral	LD50	>5,000 mg/kg (rat)
7789-75-5 calcium fluoride		
Oral	LD50	4,250 mg/kg (rat)
15096-52-3 cryolite		
Inhalative	LC50/4 h	1.5 mg/l (ATE)
14075-53-7 potassium tetrafluoroborate		
Oral	LD50	100 mg/kg (ATE)
1305-62-0 calcium dihydroxide		
Oral	LD50	7,340 mg/kg (rat)
13463-67-7 titanium dioxide		
Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

· **Primary chemical irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
Abrasive eye irritant
Abrasive skin irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
409-21-2	silicon carbide	2A
1309-37-1	diiron trioxide	3
7789-75-5	calcium fluoride	3
14075-53-7	potassium tetrafluoroborate	3
13463-67-7	titanium dioxide	2B

· **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.
· **Ecotoxical effects:**
· **Remark:** Harmful to 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.
Harmful to aquatic organisms
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 8)

· **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
· **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**
No further relevant information available.
· **Sara**

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

· **Section 313 (Specific toxic chemical listings):**	
1314-98-3	zinc sulphide

· **TSCA (Toxic Substances Control Act):**
All components have the value ACTIVE.

· **Hazardous Air Pollutants**
None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**	
13463-67-7	titanium dioxide

· **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.

(Contd. on page 10)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 9)

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

16 Other information

To the best of our knowledge, the information contained herein is accurate. However, it does not describe a guarantee of product properties and does not establish a contractual legal relationship.

· **Department issuing SDS:** Technical Services
· **Contact:** Pablo Mendoza
· **Last revision / supersedes version:** 06/01/2024 / 3.0
· **Supersedes date:** 06/01/2022
· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international 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
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
Acute Toxicity - Oral 3: Acute toxicity – Category 3
Acute Toxicity - Inhalation 4: Acute toxicity – Category 4
Skin Corrosion 1B: Skin corrosion/irritation – Category 1B
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Damage 1: Serious eye damage/eye irritation – Category 1
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Carcinogenicity 2: Carcinogenicity – Category 2
Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – 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
· *** Data compared to the previous version altered.**