# 1 Identification

- **Product name:** Silicon Carbide Powder  
  - **Part number:** 90-130130 - 90-130180  
- **Application of the substance / the mixture** Abrasive  
- **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. 1A  H350  May cause cancer.

- **Label elements**  
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).  
  - **Hazard pictograms**
    - GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**  
  - Quartz (SiO2)

- **Hazard statements**  
  - May cause cancer.

- **Precautionary statements**  
  - Obtain special instructions before use.  
  - Do not handle until all safety precautions have been read and understood.  
  - Wear protective gloves/protective clothing/eye protection/face protection.  
  - IF exposed or concerned: Get medical advice/attention.  
  - Store locked up.

(Contd. on page 2)
Product name: Silicon Carbide Powder

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

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 0
    - Fire = 0
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - Health = *1
    - Fire = 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.

<table>
<thead>
<tr>
<th>Hazardous Components:</th>
<th>Non-hazardous Components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>409-21-2 silicon carbide</td>
<td>7439-89-6 iron</td>
</tr>
<tr>
<td>7429-90-5 aluminium powder (stabilised)</td>
<td>≤1%</td>
</tr>
<tr>
<td>7440-21-3 silicon</td>
<td>Flam. Sol. 1, H228; Water-react. 2, H261 ≤1%</td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>Flam. Sol. 2, H228 ≤1%</td>
</tr>
<tr>
<td></td>
<td>Carc. 1A, H350 ≥0.1-≤1%</td>
</tr>
</tbody>
</table>

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.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed
    Coughing
    Breathing difficulty
    Gastric or intestinal disorders
- 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
    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
  - Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
Product name: Silicon Carbide Powder

· Methods and material for containment and cleaning up:
  Pick up mechanically.
  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.
· Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>409-21-2</td>
<td>silicon carbide</td>
<td>45 mg/m³</td>
</tr>
<tr>
<td>7439-89-6</td>
<td>iron</td>
<td>3.2 mg/m³</td>
</tr>
<tr>
<td>7440-21-3</td>
<td>silicon</td>
<td>45 mg/m³</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
<td>0.075 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>409-21-2</td>
<td>silicon carbide</td>
<td>500 mg/m³</td>
</tr>
<tr>
<td>7439-89-6</td>
<td>iron</td>
<td>35 mg/m³</td>
</tr>
<tr>
<td>7440-21-3</td>
<td>silicon</td>
<td>100 mg/m³</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
<td>33 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-3:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>409-21-2</td>
<td>silicon carbide</td>
<td>3,000 mg/m³</td>
</tr>
<tr>
<td>7439-89-6</td>
<td>iron</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>7440-21-3</td>
<td>silicon</td>
<td>630 mg/m³</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
<td>200 mg/m³</td>
</tr>
</tbody>
</table>

7 Handling and storage

· Handling:
· Precautions for safe handling 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 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

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>409-21-2 silicon carbide</td>
</tr>
<tr>
<td>PEL Long-term value: 15* 5** mg/m³</td>
</tr>
<tr>
<td>fibrous dust: *total dust **respirable fraction</td>
</tr>
<tr>
<td>REL Long-term value: 10* 5** mg/m³</td>
</tr>
<tr>
<td>*total dust **respirable fraction</td>
</tr>
</tbody>
</table>

(Contd. of page 2)
Product name: Silicon Carbide Powder

| TLV | Long-term value: 10* 3** mg/m³
|     | fibrous dust:0.1 f/cc; nonfibrous:*inh.,**resp. |

**7429-90-5 aluminium powder (stabilised)**

| PEL | Long-term value: 15*; 5** mg/m³
|     | *Total dust; **Respirable fraction |
| REL | Long-term value: 10* 5** mg/m³
|     | as Al*Total dust**Respirable/pyro powd./welding f. |
| TLV | Long-term value: 1* mg/m³
|     | as Al; *as respirable fraction |

**7440-21-3 silicon**

| PEL | Long-term value: 15* 5** mg/m³
|     | *total dust **respirable fraction |
| REL | Long-term value: 10* 5** mg/m³
|     | *total dust **respirable fraction |
| TLV | TLV withdrawn |

**14808-60-7 Quartz (SiO2)**

| PEL | Long-term value: 0.05* mg/m³
|     | *resp. dust; 30mg/m³/%SiO2+2 |
| REL | Long-term value: 0.05* mg/m³
|     | *respirable dust |
| TLV | Long-term value: 0.025* mg/m³
|     | *as respirable fraction |

· **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.
  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.

· **Eye protection:**

Tightly sealed goggles

(Contd. on page 5)
9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:** Powder
    - **Form:** Powder
    - **Color:** Dark grey
    - **Odor:** Odorless
    - **Odor threshold:** Not determined.
  - **pH-value:** Not applicable.
  - **Change in condition**
    - Melting point/Melting range: ~2,700 °C (~36,900 °F)
    - 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 at 20 °C (68 °F):** 3.2 g/cm³ (26.704 lbs/gal)
  - **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.
  - Do not mix with alkalies.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

(Contd. on page 6)
Product name: Silicon Carbide Powder

11 Toxicological information

· Information on toxicological effects
  · Acute toxicity:
    · LD/LC50 values that are relevant for classification:
      ATE (Acute Toxicity Estimate)
      |   | LD50  |
      | Oral | 2,090 mg/kg (rat) |
      | Dermal | 2,090 mg/kg (rat) |
    
    409-21-2 silicon carbide
    | Oral | LD50  | 2,010 mg/kg (rat) |
    | Dermal | LD50  | 2,010 mg/kg (rat) |
    
    7440-21-3 silicon
    | Oral | LD50  | 3,160 mg/kg (rat) |

· 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
  Abrasive skin irritant

· Carcinogenic categories
  · IARC (International Agency for Research on Cancer)
    |   |   |
    | 409-21-2 silicon carbide | 2A |
    | 14808-60-7 Quartz (SiO2) | I |

  · NTP (National Toxicology Program)
    |   | 14808-60-7 Quartz (SiO2) | K |

  · 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.
· Additional ecological information:
  · General notes: Not hazardous for water.
· 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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
<td>DOT, ADN, IMDG, IATA</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>DOT, ADN, IMDG, IATA</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>DOT, ADN, IMDG, IATA</td>
</tr>
<tr>
<td>Class</td>
<td>DOT, ADN, IMDG, IATA</td>
</tr>
<tr>
<td>Packing group</td>
<td>DOT, IMDG, IATA</td>
</tr>
<tr>
<td>Environmental hazards: Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>not regulated</td>
</tr>
</tbody>
</table>

### 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):
      - 7429-90-5 aluminium powder (stabilised)
    - 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:
      - 14808-60-7 Quartz (SiO2)
    - 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.
  - Carcinogenic categories
    - EPA (Environmental Protection Agency)
      None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    - 4092-21-2 silicon carbide
      A2
    - 7429-90-5 aluminium powder (stabilised)
      A4
    - 14808-60-7 Quartz (SiO2)
      A2
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:** 05/01/2020 / 1.0

- **Abbreviations and acronyms:**
  - 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
  - Flam. Sol. 1: Flammable solids – Category 1
  - Flam. Sol. 2: Flammable solids – Category 2
  - Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2
  - Carc. 1A: Carcinogenicity – Category 1A