Material Safety Data Sheet

Identity: Zirconium silicide

Formula: ZrSi₂

SECTION I - GENERAL INFORMATION

Manufacturer: Stanford Advanced Materials (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Form Weight:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>14940-68-2</td>
<td>5mg/M3 TWA.</td>
<td>5mg/M3, 10 mg/3 STEL</td>
<td></td>
</tr>
<tr>
<td>14808-60-7</td>
<td>0.1mg/M3 TWA</td>
<td>0.1mg/3 TWA</td>
<td></td>
</tr>
</tbody>
</table>

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: N/E or N/A

Vapor Pressure®mmHg): N/e or N/A Melting Point: 4082°F

Vapor Density: (air=1): N/E or N/A Evaporation Rate: N/E or N/A

Percent Volatile by Volume: N/E or N/A Solubility in water: Insoluble

Appearance and odor: White to brown, odorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Flash Point: N/E or N/A

Method Uses: Non-flammable.

Extinguishing Media: Not a fire hazard.

Unusual Fire and Explosion Hazards: Not a fire hazard.
SECTION V - REACTIVITY DATA

Stability: Stable
Conditions to Avoid: None
Incompatibility: None
Hazardous Polymerization: Will not occur.
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SECTION VI - HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes

Health Hazards (Acute and Chronic):
Inhalation:
Acute: May cause irritation of the respiratory system. Zirconium silicate is insoluble and considered inert.
Chronic: No chronic health effects recorded.

Ingestion:
Acute: None known.
Chronic: May cause cancer if long time overexposure occurs.

Skin:
Acute: May cause irritation.
Chronic: No chronic health effects recorded.

Eye:
Acute: May cause irritation.
Chronic: No chronic health effects recorded.

Target Organ:

Carcinogenicity: NTP? IARC Monographs? OSHA Regulated?

Medical Conditions Aggravated by Exposure:

Emergency and First Aid Procedures:
Inhalation: Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention
Ingestion: Do not induce vomiting. Seek medical attention.
Skin: Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist.
Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention immediately.
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII-Control Measures. Isolate spill area, provide ventilation. Take care not to raise dust.

Waste disposal method:
Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information:
Keep container tightly closed. Store in cool, dry area. Wash thoroughly after use.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

Rubber gloves and safety glasses and clothes to prevent contact.

Respiratory Protective:

NIOSH approved dust respirator.

Work/Hygienic/Maintenance Practices:
Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established