Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Commercial name: SiC Hexoloy
Description: Silicon carbide – SiC
CAS number: 409-21-2
EC number: 206-991-8
REACH registration number: 01-2119402892-42-0014

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses of the substance: Refractories, abrasives, steel manufacturing, ceramics.
Not recommended uses of the substance: Other than the identified uses indicated above.

1.3. Details of the supplier of the safety data sheet

Company name: Saint-Gobain Ceramics, Structural Ceramics Division
Postal Address: 23 Acheson Drive, Niagara Falls, NY 14303
Country: United States
Tel: (716) 278-6212
Fax: (716) 278-2373
E-mail: lawrence.m.banach@saint-gobain.com (product manager)

1.4. Emergency telephone number

Emergency telephone number: # 1-800-424-9300 (CHEMTREC)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

CLP regulation EC 1272/2008: Not classified.
OSHA GHS (US): Not classified

2.2. Label elements

Not required under Regulation EC 1272/2008 and OSHA GHS (US).

2.3. OTHER HAZARDS

SiC does not fulfill the criteria for the classification as PBT or vPvB.

NFPA Hazard Rating:
- Reactivity: 0
- Flammability: 0
- Health: 0

WHMIS: Not hazardous

Section 3: Composition/information on ingredients

3.1. Substances

Contains SiC (EC N°: 206-991-8, CAS# 409-21-2) in the 99-100 % range

Contains traces of C, Si, Fe2O3, CaO, MgO and crystalline silica where the content of particles in respirable form is less than the limit being subject for classification. (< 0,1%)
Section 4: First aid measures

4.1. Description of first aid measures

Inhalation No special action required

Skin contact No special action required
Mechanical irritant, prolonged contact may cause skin abrasion
Seek medical attention if needed

Eye contact Flush with plenty of clean water
Mechanical irritant, contact may cause tearing and redness
Seek medical advice if irritation persists

Ingestion No special action required

4.2. Most important symptoms and effects, both acute and delayed

Not applicable

4.3. Indication of any immediate medical attention and special treatment needed

No specific treatment required

Section 5: Fire fighting measures

5.1. Extinguishing media

General information Not inflammable
Suitable extinguishing media All extinguishing agents can be used.

5.2. Special hazards arising from the substance or mixture

No special exposure hazards known arising from the product itself, combustion products or resulting gases.

5.3. Advice for firefighters

Specific fire fighting methods Does not require any particular methods
Protection of fire-fighters Use appropriate protective equipment.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Limit dust formation, use disposable (P2 as a minimum) dust protection mask

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Pick up mechanically and dispose of in accordance to regulations

6.4. Reference to other sections

See also section 7 and 8.

Section 7: Handling and storage

7.1. Precautions for safe handling

Technical measures Ensure areas are well ventilated. Minimize dust formation
Precautions to be taken
For operations generating dust: Wear N95, FFP2 or FFP3 dust mask.

7.2. Conditions for safe storage, including any incompatibilities
No special precautionary measures

7.3. Specific end use(s)
See section 1.1

Section 8: Exposure control / personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>Inhalable (total) dust</th>
<th>Respirable dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Germany</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>USA (ACGIH)</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

8.2. Exposure control

Occupational exposure controls:
Provide adequate ventilation. Mechanical ventilation may be required. Do not eat, drink or smoke during work. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier or the personal protective equipment. The listed protective equipment is a recommendation. A risk assessment of the actual risk may lead to other requirements.

EYE/FACE PROTECTION
Eye protection: Wear approved safety goggles

SKIN PROTECTION
Hand protection: Use gloves suitable for the work. The product is solid and cannot penetrate normal glove materials.
Skin protection (other than the hands): Wear appropriate protective clothing to protect against skin contact.

RESPIRATORY PROTECTION
Respiratory protection: Use mask with N95, FFP2 or FFP3 filter in case of dust formation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Value: ~3.1 g/cm³</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosion limit</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
9.2. Other information
No data

Section 10: Stability and reactivity

10.1. Reactivity
Not reactivity hazards

10.2. Chemical stability
The material is stable under normal temperature conditions

10.3. Possibility of hazardous reactions
No hazardous reactions known

10.4. Conditions to avoid
Not applicable

10.5. Incompatible materials
Soluble in fused potassium hydroxide, fused alkalies, and molten iron.
Above 700ºC, contact with chlorine may form carbon and silicon tetrachloride. At temperatures above 800ºC, contact with metal oxides may form metal silicides.

10.6. Hazardous decomposition products
Oxides of silicon and carbon may be produced.

Section 11: Toxicological information

11.1. Information on toxicological effects

General information …….. No hazardous effects known, if used under normal conditions

“Non-fibrous forms of SiC, sometimes referred to as “angular” particles, are irregular in shape and occur as respirable and non-respirable particles. The non-fibrous forms of SiC have very low toxicity in humans and experimental animals. The TLV-TWA for non-fibrous forms, is therefore, set at the level of “poorly” soluble particles, not otherwise specified (PNOS), being 10 mg/m³ for inhalable particles, and 3mg/m³ for respirable particles.” (ACGIH Toxicology review 2001).

(a) acute toxicity …….. no harmful effects identified, based on available data
(b) irritation …….. no harmful effects identified, based on available data
(c) corrosivity …….. no harmful effects identified, based on available data
(d) sensitisation …….. no harmful effects identified, based on available data
(e) repeated dose toxicity …….. no harmful effects identified, based on available data
(f) carcinogenicity …….. no harmful effects identified, based on available data
(g) mutagenicity …….. no harmful effects identified, based on available data
(h) toxicity for reproduction …….. no harmful effects identified, based on available data

Section 12: Ecological information

12.1. Toxicity. no harmful effects identified, based on available data
12.2. Persistence and degradability. Chemically inert and insoluble in water; separation by mechanical processes (sedimentation, filtration, etc…)

12.3. Bioaccumulative potential. No potentials known

12.4. Mobility in soil. No environmental problems known

12.5. Results of PBT and vPvB assessment. No PBT or vPvB substance

12.6. Other adverse effects. No environmental problems expected, if handled and treated in accordance with standard industrial practice

Section 13: Disposal considerations

13.1. Waste treatment methods
Material: Not classified as hazardous waste; observe local bye-laws.
No EPA Waste Numbers are applicable
Packaging: Packaging has to be emptied entirely; recycling of used packaging is recommended; local bye-laws must be considered.

Section 14: Transport information

14.1 UN number. Not applicable, non hazardous material
14.2 UN proper shipping name. Not applicable, non hazardous material
14.3 Transport hazard class(es). Not applicable, non hazardous material
14.4 Packing group. Not applicable, non hazardous material
14.5 Environmental hazards. Not applicable, non hazardous material

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
SiC is not classified as a hazardous substance.
Labelling according to Regulation EC 1272/2008 and OSHA GHS (US) is not required.
All ingredients are listed on TSCA (Toxic Substance Control Act).
None of the substances are listed in Proposition 65 (California).

15.2 Chemical Safety Assessment
Not relevant
Section 16: Other information

Restrictions of use  This product must not be used for applications other than those indicated in section 1.

Replace sheet  06/01/2010

Supplier’s notes: The information contained in this SDS must be available to all those who handle the product.

Responsible for safety data sheet: Saint-Gobain Ceramic Materials.

Information concerning the modifications:
- mention of US GHS in sections 2 and 15
- modification of the format
- update of the informations of sections 11 to 14 with the SiCMa information.

This sheet completes the technical sheets but it does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith.

The attention of the user is drawn to the risks possibly incurred by using the product for any other purpose than that for which it was intended.

This does not in any way excuse the user from knowing and applying all the regulations governing his activity.

It is the sole responsibility of the user to take all precautions required in handling the product.

The mandatory regulations mentioned are only intended to help the user to fulfill his obligations regarding the use of hazardous products.

This listing must not be considered exhaustive. It does not exonerate the user from ensuring that other legal obligations than those mentioned do not exist, relating to the use and storage of the product for which he solely is responsible.