



Product: **Silicon Carbide (SiC)**

Version: 4.2 (revising version 3.0)

Revision: April 2023

Printing date - 26/04/2023

# Safety Data Sheet

## Silicon Carbide (SiC)

following the format of Regulation (EC) No 1907/2006

(Please note, the substance is not classified as hazardous and thus does not legally require an SDS)

Commercial product name: CARBOREX Silicon Carbide

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

#### 1.1 Product identifier

Product name: Silicon Carbide  
Commercial product name  
Registration number

**Silicon Carbide**  
**CARBOREX Silicon Carbide**  
**01-2119402892-42-0000**

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

**Grinding, Lapping and Polishing - Wire Sawing - High Tech Ceramics - Refractory - Metallurgical.**

No uses of silicon carbide advised against.

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier  
Distributor (if applicable)  
Street address:  
Address  
Country  
Telephone  
Department responsible for technical information  
E-mail address of competent person responsible for the SDS

**Washington Mills AS**  
-  
**Sjøbuveien 6**  
**7300 ORKANGER**  
**Norway**  
**+47 72 48 35 00**

[msds@washingtonmills.no](mailto:msds@washingtonmills.no)

[msds@washingtonmills.no](mailto:msds@washingtonmills.no)

#### 1.4 Emergency telephone number

GIZ-Nord (Poison Centre): Tel: Tel: ++49-551-19240  
Information only available in German or English



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## **Section 2: HAZARDS IDENTIFICATION**

### **2.1 Classification of the substance or mixture**

SiC (crude and grains) is not classified as hazardous substance or mixture according to-Regulation (EC) No 1272/2008.

### **2.2 Label elements**

No labelling required for SiC.

### **2.3 Other hazards**

SiC does not fulfil the criteria for the classification as PBT or vPvB.  
No specific toxicity described for SiC crude and grains.

## **Section 3: Composition/information on ingredients**

### **3.1 Substances**

Contains SiC (EC N°: 206-991-8, CAS# 409-21-2) in 80-100 % range  
(not classified according to Regulation (EC) N° 1272/2008)

Other ingredients

Impurities of SiC products is C, Si, SiO<sub>2</sub>, Fe, Fe<sub>2</sub>O<sub>3</sub> and traces of Al<sub>2</sub>O<sub>3</sub>, CaO and MgO.

The content of impurities will depend on the percentage of SiC in the product

May also contain traces of respirable crystalline silica (less than 0.01% w/w)

## **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



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Ingestion No special action required

Self-protection of the first aider: Not 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: FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

General information Not inflammable

Suitable extinguishing media Use extinguishing measures appropriate to the sources of the fire

Unsuitable extinguishing media: None known

#### **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.

Hazardous combustion products: None known

#### **5.3 Advice for firefighters**

Special protective equipment Not applicable

### **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**

No special measures required

#### **6.3 Methods and material for containment and cleaning up**

Pick up mechanically and dispose of in accordance to regulations



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#### **6.4 Reference to other sections**

See also section 7 and 8.

### **Section 7: HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling**

Minimize dust formation

Precautions against fire and explosion

No danger of fire and dust explosion

#### **7.2 Conditions for safe storage, including any incompatibilities**

Conditions of storage rooms and vessels

No special precautionary measures

Advice of storage of incompatible materials

None

Further information of storage

None

#### **7.3 Specific end use(s)**

Not applicable

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## **Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **8.1 Control parameters**

Components with specific control parameters as limit values

substance	CAS-N°	EC-N°	Limit value type (country of origin)	Occupational limit value				Peak limit	source, remark
				Long term		Short term			
				mg/m³	ml/m³ (ppm)	mg/m³	ml/m³ (ppm)		
Silicon Carbide, Inhalable fraction	409-21-2		WEL UK	10					EH40/2005 Workplace exposure limits
			OELV Ireland	10					Chemical Agents Code of Practice
Silicon Carbide, respirable fraction	409-21-2		WEL UK	4					EH40/2005 Workplace exposure limits
			OELV Ireland	3					Chemical Agents Code of Practice
Dusts non-specific, Inhalable fraction			OELV Ireland	10					Chemical Agents Code of Practice
Dusts non-specific, respirable fraction			OELV Ireland	4					Chemical Agents Code of Practice

Additional national exposure limit values have to be taken into consideration.

### **8.2 Exposure controls**

Further information for system design and engineering measures

Use engineering controls to ensure compliance (implies air monitoring strategy, proper selection of air sampling equipment and statistical analysis of dust levels) with applicable dust exposure limits.

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Personal protection equipment

General hygiene

Observe standard hygiene practices (e.g. do not eat or drink at the workplace, comply with smoking rules in the company).

Respiratory protection

Avoid inhaling the dust; if in specific circumstances, compliance cannot be achieved, use a disposable (P2 as a minimum) dust protection mask.

Hand protection

Protective gloves are recommended.

Eye protection

Wear safety glasses.

Environmental exposure controls

See section 6 and 7. No further measures required.

## **Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

Physical state		Solid (Grains, powder)
Colour		Green, dark green, black
Odour		Odourless
Melting Point /freezing point		Not applicable, decompose at 2830°C
Boiling point or initial boiling point and boiling range		Not applicable
Flammability		Not applicable
Lower and upper explosion limit		Not applicable
Flash point		Not applicable
Auto-ignition temperature		Not applicable
Decomposition temperature		Not applicable
pH value		Not applicable
Kinematic viscosity		Not applicable
Solubility		Practically non soluble
Partition coefficient n-octanol/water (log value)		Not applicable
Vapour pressure		Not applicable
Density and/or relative density		Specific density 3.2 g/cm <sup>3</sup> Bulk density 0.50-2.0 g/cm <sup>3</sup>
Relative vapour density		Not applicable
Particle characteristics		Median equivalent diameter by volume from laser scattering measurements: 0.1-2000 µm



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## 9.2 Other information

Dustiness ..... according to EN 15051 standard

## **Section 10: STABILITY AND REACTIVITY**

<b>10.1</b>	<b>Reactivity</b>	.....	No reactivity hazards
<b>10.2</b>	<b>Chemical stability</b>	.....	The material is stable
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	.....	No hazardous reactions known
<b>10.4</b>	<b>Conditions to avoid</b>	.....	Not applicable
<b>10.5</b>	<b>Incompatible materials</b>	.....	Not applicable
<b>10.6</b>	<b>Hazardous decomposition products</b>	.....	Not applicable

## **Section 11: TOXICOLOGICAL INFORMATION**

### **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

(a) acute toxicity	.....	no harmful effects identified, based on available data
(b) skin corrosion/irritation	.....	no harmful effects identified, based on available data
(c) serious eye damage/irritation	.....	no harmful effects identified, based on available data
(d) respiratory or skin sensitisation	.....	no harmful effects identified, based on available data
(e) germ cell mutagenicity	.....	no harmful effects identified, based on available data
(f) carcinogenicity	.....	no harmful effects identified, based on available data
(g) reproductive toxicity	.....	no harmful effects identified, based on available data
(h) STOT – single exposure	.....	no harmful effects identified, based on available data
(i) STOT - repeated exposure	.....	no harmful effects identified, based on available data
(j) aspiration hazard	.....	no harmful effects identified, based on available data

### **11.2 Information on other hazards**

Endocrine disrupting properties: no information available  
Other information: no information available

## **Section 12: ECOLOGICAL INFORMATION**



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<b>12.1</b>	<b>Toxicity</b>	.....	no harmful effects identified, based on available data
<b>12.2</b>	<b>Persistence and degradability</b>	.....	chemically inert and insoluble in water; separation by mechanical processes (sedimentation, filtration, etc...)
<b>12.3</b>	<b>Bioaccumulative potential</b>	.....	no potentials known
<b>12.4</b>	<b>Mobility in soil</b>	.....	no environmental problems known
<b>12.5</b>	<b>Results of PBT and vPvB assessment</b>	.....	no PBT or vPvB substance
<b>12.6</b>	<b>Endocrine disrupting properties</b>	....	no endocrine disrupting substance
<b>12.7</b>	<b>Other adverse effects</b>	.....	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.

Packaging Packaging has to be emptied entirely; recycling of  
used packaging is recommended; local bye-laws  
must be considered.

### **Section 14: TRANSPORT INFORMATION**

- |             |  |  |
|-------------|--|--|
| <b>14.1</b> | <b>UN number or ID number</b>                                  | Not applicable, non hazardous material                   |
| <b>14.2</b> | <b>UN proper shipping name</b>                                 | Not applicable, non hazardous material                   |
| <b>14.3</b> | <b>Transport hazard class(es)</b>                              | Not applicable, non hazardous material                   |
| <b>14.4</b> | <b>Packing group</b>   | Not applicable, non hazardous material                   |
| <b>14.5</b> | <b>Environmental hazards</b>                                   | Not applicable, non hazardous material                   |
| <b>14.6</b> | <b>Special precautions for user</b>                            | Not applicable, non hazardous material                   |
| <b>14.7</b> | <b>Maritime transport in bulk according to IMO instruments</b> | Carborundum / silicon carbide, Group C, HME: no; MHB: no |





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## **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) N° 1272/2008 is not required.

#### **Water hazard class (DE)**

Classification on the basis of the Ordinance on facilities for handling substances that are hazardous to water (Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)) of 18 April 2017 (BGBl 2017, Teil I, Nr. 22, Seite 905):

Substances is classified as non-hazardous to water (nwg)

### **15.2 Chemical Safety Assessment**

Not relevant

## **Section 16: OTHER INFORMATION**

### Labelling of SiC Products

Members of SiC Ma have established on a voluntary basis a label which summarizes the main safety and health aspects related to the handling of SiC products. The label is attached as Annex 1 to this SDS.

### Further Information sources

ACGIH review

British Journal of Industrial Medicine :

1993, vol. 50, issue 9, part 1, pages 797-806

1993, vol. 50, issue 9, part 2, pages 807-813

### *Abbreviations :*

ACGIH : American Conference of Governmental Industrial Hygienists

WEL Workplace exposure limits

OELV Occupational Exposure limit value

### *Disclaimer :*

To the best of our knowledge, the information contained in this SDS is accurate or is obtained from sources believed to be accurate. However, no liability, expressed or implied, is assumed for the accuracy or completeness of the information contained herein. Buyer assumes liability in its use of the material.

The product specification is contained in a separate product technical data sheet.





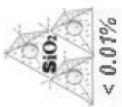

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### Annex 1 – voluntary SiC Ma label

English	Français	Deutsch	Español	中文
				
<p>Wear safety glasses; wash with large amount of water in case of eyes contact.</p>	<p>Utiliser des lunettes de sécurité; laver à grande eau en cas de contact oculaire.</p>	<p>Sicherheitsbrille tragen; Nach Augenkontakt mit viel Wasser auswaschen.</p>	<p>Utilizar gafas de seguridad. Lavar los ojos con abundante agua en caso de contacto ocular.</p>	 <p>请佩戴防护眼镜；万一眼中注入了碳化硅请用大量清水进行冲洗。</p>
<p>Protective gloves are recommended.</p>	<p>Les gants de protection sont recommandés.</p>	<p>Schutzhandschuhe werden empfohlen.</p>	<p>Se recomienda el uso de guantes.</p>	 <p>请佩戴防护手套。</p>
<p>Minimize dust generation when handling &amp; processing; comply with applicable dust exposure limits; if necessary use local exhaust ventilation and respiratory protection.</p>	<p>Eviter la production de poussières ; se conformer aux valeurs limites d'exposition ; si nécessaire utiliser la ventilation locale et la protection respiratoire.</p>	<p>Staubzeugung während der Handhabung u. Verarbeitung vermeiden; die gültigen Staubbelastungsgrenzen einhalten; wenn nötig lokale Absaugventilatoren und Atemschutz verwenden.</p>	<p>Evitar la generación de polvos; cumplir con los límites de exposición para polvos. Si fuese necesario, utilizar ventilación y protección respiratoria adecuada.</p>	 <p>在搬运和加工过程中请尽可能减少灰尘产生；不同工作现场应遵循与工作现场相适应的有关粉尘暴露限制规定；如果必要，请尽量使用移动通风排气装置，佩戴防护口罩。</p>
<p>Products may contain traces of respirable crystalline silica far below the 0.1% regulatory limit.</p>	<p>Ce produit peut contenir des traces de silice cristalline alvéolaire, bien en dessous du seuil réglementaire de 0,1%.</p>	<p>Produkte können Spuren weit unterhalb des vorgeschriebenen Grenzwertes von 0,1% der erlaubbaren Kristallin-Kieselsäure enthalten.</p>	<p>Los productos pueden contener trazas de sílice cristalina respirable por debajo del límite admisible del 0,1%.</p>	 <p>产品可能含有微量可吸入的低于正常规定0.1%的硅粉。</p>
<p>Refer to Material Safety Data Sheet (MSDS).</p>	<p>Consulter la Fiche de Données de Sécurité.</p>	<p>Siehe Sicherheitsdatenblatt.</p>	<p>Consultar las hojas de seguridad del material.</p>	 <p>参见产品的相关化学品安全技术说明书。</p>