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## 1. Identification of the substance/preparation and company

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### Product details:

#### **Trade name:**

@SIGRACET - gas diffusion media (GDL)  
all types with index AB or BA upwards

#### **Application:**

Employment in fuel cell.

### Producer / supplier details:

#### **Producer/supplier:**

SGL TECHNOLOGIES GmbH  
Werner-von-Siemens-Str. 18                      D-86405 Meitingen  
Phone: ++49-8271-83-0                              Fax: ++49-8271-83-2127

#### **Information providing division:**

SGL TECHNOLOGIES GmbH - Meitingen plant  
Werner-von-Siemens-Str. 18                      D-86405 Meitingen  
Phone: ++49-8271-83-2426                              Fax: ++49-8271-83-2243

#### **Information in case of emergency:**

SGL TECHNOLOGIES GmbH - Meitingen plant  
Phone: ++49-8271-83-1200                              Fax: ++49-8271-83-2466

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## 2. Composition/information on ingredients

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### Chemical characteristics:

Product/material based on carbon and PTFE

### Hazardous ingredients:

Fibers are not classified hazardous acc. to 67/548/EEC.

### Additional information:

None.

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## 3. Possible Hazards

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### Information on particular hazards to human and environment:

Carbon fibers are electrically conductive and may cause short circuits in electrical equipments.  
Improve level of electrical protective measure. IP54 is demanded.

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#### 4. First aid measures

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**General information:**

None.

**On inhalation:**

After inhalation of greater quantities of dust, take affected person to fresh air.

**On contact with skin:**

After handling fibers wash skin with soap and water. Fibers may cause skin irritation.

**On contact with the eyes:**

Rinse with plenty of water.

**If swallowed:**

Drink water

**Particular advices for the physician:**

None

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#### 5. Fire-fighting measures

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**Suitable extinguishing media:**

Foam, carbon dioxide, dry powder, water spray jet.

**Unsuitable extinguishing media, for safety reasons:**

Direct water spray

**Particular risks arising from the substance, its preparation, its products of combustion or formed gases:**

Fibers or dust may glow in oxygen containing atmosphere above 350°C. Polytetrafluorethylene decomposes above 380°C under release of poisonous compounds. During glowing and in case of fire CO/CO<sub>2</sub> is generated, as well as the release of organic decomposition products is possible.

**Special protection equipment needed for fire-fighting:**

None, in case of insufficient ventilation use respiration equipment (against CO/CO<sub>2</sub>).

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## 6. Measures in case of accidental release

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**Personal precautions:**

In case of dust release use protective mask (P1).

**Environmental precautions:**

None.

**Methods for cleaning/removal:**

Remove mechanically.

**Additional information:**

None.

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## 7. Handling and storage

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**Handling:**

**Advice on safe handling:**

None.

**Advice on protection against fire and explosion:**

Remove fine dust regularly.

**Storage:**

**Requirements on storage areas and tanks:**

Dry, beware of humidity.

**Advice on storage assembly:**

None.

**Additional information on storage conditions:**

None.

**Storage class:**

Not classified.

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## 8. Exposure limitations and personal protection equipment

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**Measure for limitation and monitoring the exposure:**

Take care for good ventilation of the working area.

**Additional advice on the design of technical equipment:**

None.

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## **8. Exposure limitations and personal protection equipment (cont.)**

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### **Ingredients with occupational exposure limits to be monitored:**

<b>CAS-No.</b>	<b>Name of substance</b>	<b>Type</b>	<b>Value</b>	<b>Unit</b>
None.				

### **Additional advices:**

None.

### **Personal protective equipment:**

#### **General protective and hygiene measures:**

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

#### **Respiratory protection:**

Dust protective mask (P1), if dust is formed.

#### **Hand protection:**

Textile gloves.

#### **Eye protection:**

Tight closing safety glasses, if dust is formed.

#### **Body protection:**

None.

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## **9. Physical and chemical properties**

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### **Appearance:**

**Form:** solid  
**Colour:** grey/black  
**Odour:** none

### **Data relevant to safety:**

<b>Parameter</b>	<b>Value/range</b>	<b>Unit</b>	<b>method</b>
<b>Softening point:</b>	inapplicable		
<b>Boiling point/range:</b>	inapplicable		
<b>Melting point/range:</b>	inapplicable		
<b>Flash point:</b>	inapplicable		
<b>Ignitability:</b>	inapplicable		
<b>Ignition temprature:</b>	inapplicable		
<b>Self ignitability:</b>	none *)		
<b>Inflammable properties:</b>	none		
<b>Explosive risk:</b>	none *)		

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## 9. Physical and chemical properties (continued)

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### Data relevant to safety:

Parameter		Value/range	Unit	method
Explosion limits:	upper	inapplicable		
	lower	inapplicable		
Vapour pressure at 20°C:		inapplicable		
bulk density at 20°C:		0.25	g/cm <sup>3</sup>	
Solubility at 20°C:		none (in water)		
pH-value:		inapplicable		
Partition coefficient n-octanol/water:		inapplicable		
Viscosity:		inapplicable		
Additional information:		Carbon fibers are electrically conductive		

### Remarks:

\*) if properly used and stored

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## 10. Stability and reactivity

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### Conditions to be avoided:

None.

### Contact with substances to be avoided:

None.

### Hazardous decomposition products:

None, if handled in accordance with description.

### Additional information:

None.

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## 11. Toxicological information

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No toxic effects are known from handling the product.  
Diameter of the fibers appr. 7 µm, do not fibrillize.

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## 12. Ecological information

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No ecological data available.

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## 13. Disposal consideration

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### Product/preparation:

Disposal in accordance with EC directive 91/692/EEC.

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### 13. Disposal consideration (continued)

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**Contaminated packing material:**

Disposal in accordance with EC directive 91/692/EEC.

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### 14. Transport information

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No hazardous material as defined by the transport regulations.

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### 15. Regulations

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**Labelling according to EC regulations:**

**Code-letter and hazard-symbol for the product:**

No subject to mandatory marking.

**Hazardous ingredient(s) relevant for labelling:**

None.

**R-phrases:**

None.

**S-phrases:**

None.

**National regulations:**

**Additional classification acc. to GefStoffV (D) Appendix II:**

None.

**Regulations for handling restrictions:**

None.

**Hazardous industries directive:**

None.

**Classification acc. to BetrSichV (D):**

None.

**Technical guideline "TA-Luft" (D):**

None.

**Hazard classification for water (D):**

Slightly water hazardous; self-classification.

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**15. Regulations (continued)**

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**Other regulations, restrictions and prohibition regulations:**  
None.

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**16. Other informations**

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**Other informations:**  
None.

**Safety data sheet providing division:**  
Meitingen plant / Safety & occ. health division

**Person to contact:**  
Dr. R. Meyer zu Reckendorf      Phone: ++49-8271-83-1512

This information is based on our present state of knowledge and is intended to describe our products in respect of safety requirements. It should therefore not be construed as guaranteeing specific properties of the products described or their suitability for particular application. This information does not form part of any contractual agreement in law.