



# Material Safety Data Sheet

(MSDS)

<b>Product name</b>	<b>DSR-1000</b>
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### 1. Chemical product and enterprise logo

**A. Name of Product** DSR-1000 BS

**B. Recommended use of the product and the limitation on use**

☐ Recommended use :

☐ Limitation on use : No data available

**C. Producer and supplier:**

**Name of producing company:** Doosan Corporation Electro-Materials BG

Address: 83-16, Gongdan 1-gil, Gimcheon-si, Gyeongsangbuk-do, Korea

Phone: 82 - 31 - 260 - 6399

FAX: 82 - 31 - 260 - 6159

Department in charge: Person in charge:

**Name of Supplier Company:**

Address:

Phone:

FAX:

Department in charge: Person in charge:

### 2. Hazard overview

**A. Classification of harmfulness. Danger**

☐ Physical dange : Not Applicable

☐ Health harmfulness : Not Applicable

☐ Environmental harmfulness: Not Applicable

**B. Warning sign items including preventive measure phrases**

☐ Pictorial symbol:

☐ Signal language: Not Applicable

☐ Harmfulness.Danger Phrases: Not Applicable

☐ Preventive measure phrases

Prevention : Not Applicable

Response: Not Applicable

Store : Not Applicable

Disposal : Not Applicable

**C. Other harmfulness.danger not included in the criteria of classification of harmfulness.danger**

Cas number	Health	Fire	Response
<input type="radio"/> 65997-17-3 :	-	-	-
<input type="radio"/> 28906-96-9 :	-	-	-
<input type="radio"/> 29160-69-8 :	-	-	-
<input type="radio"/> 1818863-75-0 :	-	-	-
<input type="radio"/> 7631-86-9 :	-	-	-

### 3. Ingredient/composition information

Name of chemical	Usual name and other names	CAS Number / Identification number	Content(%)
Glass cloth	-	65997-17-3	10~65
Epoxy resin	-	28906-96-9	10~25
Hardner	-	29160-69-8	10~30
Phosphorus Modified Resin	-	1818863-75-0	1~7
Silica Filler	-	7631-86-9	10~30

#### 4. First-aid measures

##### A. Eye exposure

Call a doctor and get medical advice/attention  
Remove contact lenses, if the victim wears one and it is easy to take out.  
Immediately flush eyes with plenty of water for at least 20 minutes.  
When washing, open the eyelids and wash the eyeballs thoroughly.

##### B. Skin exposure

Call a doctor and get medical advice/attention  
Remove/Take off immediately all contaminated clothing.  
Flush and wash with plenty of cold or lukewarm water and soap, etc.  
Obtain medical attention if appearance changes or pain occurs.

##### C. Inhalation

Call a doctor and get medical advice/attention  
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

##### D. Ingestion

Call a doctor and get medical advice/attention

##### E. The most major symptom/influence of acute and chronic illness

No data available

##### F. First aid and the matters that require attention of doctors

No data available

#### 5. Fire safety measures

##### A. Appropriate (inappropriate) fire extinguisher

- ☐ Appropriate fire extinguisher : No data available  
☐ Inappropriate fire extinguisher : No data available

##### B. Particular harmfulness generated from chemicals

- ☐ Risk of fire and explosion : No data available

##### C. Protective equipment to put on when extinguishing fire and preventive measures

No data available

#### 6. Leak Emergency Treatment

##### A. Measures and protective equipments necessary to protect human body

No data available

##### B. Measures necessary to protect environment

- ☐ Atmosphere : No data available  
☐ Earth : No data available  
☐ Under water : No data available

##### C. Method of purification or removal

- ☐ in case of leaking a little amount: No data available  
☐ in case of leaking large amount : No data available

#### 7. Operation, Disposal and Storage

##### A. Safe treatment method :

No data available

##### B. Method of safe storage :

No data available

## 8. Exposure Control and Individual Protection

### A. Standard of exposure of chemicals and biological standard of exposure etc.

☐ Domestic regulation

	65997-17-3	28906-96-9	29160-69-8	7631-86-9	1818863-75-0
TWA	No data available	No data available	No data available	No data available	No data available
STEL	No data available	No data available	No data available	No data available	No data available

☐ ACGIH Regulation

	65997-17-3	28906-96-9	29160-69-8	7631-86-9	1818863-75-0
TLV-TWA	No data available	No data available	No data available	No data available	No data available
STEL	No data available	No data available	No data available	No data available	No data available

☐ OSHA regulation

	65997-17-3	28906-96-9	29160-69-8	7631-86-9	1818863-75-0
TLV-TWA	No data available	No data available	No data available	No data available	No data available
STEL	None	No data available	No data available	No data available	No data available

☐ NIOSH regulation

	65997-17-3	28906-96-9	29160-69-8	7631-86-9	1818863-75-0
TLV-TWA(10 hours)	No data available	No data available	No data available	No data available	No data available
STEL	No data available	No data available	No data available	No data available	No data available

☐ Biological exposure standard

: No data available

### B. Appropriate engineering management

: No data available

### C. Personal Protective Apparatus

☐ Protection of respiratory organ : No data available

☐ Eye protection : No data available

☐ Hands protection : No data available

☐ Body protection : No data available

## 9. Physical and Chemical Properties

구분	Characteristics				
	65997-17-3	28906-96-9	29160-69-8	7631-86-9	1818863-75-0
A. Appearance	Solid	Reddish glossy solid	No data available	No data available	No data available
B. Smell	No smell	No smell	No data available	No data available	No data available
C. Smell Value	No data available	No data available	No data available	No data available	No data available
D. pH	No data available	No data available	No data available	No data available	No data available
E. Melting point/Freezing point	>500 °C	No data available	No data available	No data available	No data available
F. Boiling point/boiling point extent	>1000 degree C at 1013 hPa	No data available	No data available	No data available	No data available
G. Flashing point	No data available	No data available	No data available	No data available	No data available
H. Evaporating rate	No data available	No data available	No data available	No data available	No data available
I. Flammability (solid, gas)	No data available	No data available	No data available	No data available	No data available
J. Ignition highest/lowest value	No data available	No data available	No data available	No data available	No data available
K. Steam pressure	No data available	No data available	No data available	No data available	No data available
L. Solubility	No data available	No data available	No data available	No data available	No data available
M. Vapor density	No data available	No data available	No data available	No data available	No data available

N. Specific gravity	No data available	No data available	No data available	No data available	No data available
O. n-octanol/water distribution coefficient	No data available	No data available	No data available	No data available	No data available
P. Spontaneous ignition temperature	No data available	No data available	No data available	No data available	No data available
Q. Decomposition temperature	No data available	No data available	No data available	No data available	No data available
R. Viscosity	No data available	No data available	No data available	No data available	No data available
S. Molecular weight	No data available	No data available	No data available	No data available	No data available

#### 10. Stability and Reactivity

<b>A. Chemical stability :</b>	Stable in normal temperature and pressure
<b>B. Possibility of harmful response :</b>	No polymerization
<b>C. Condition to avoid :</b>	No data available
<b>D. Material to avoid :</b>	Water
<b>E. Harmful material generated when decomposing :</b>	No data available

#### 11. Toxicological Information

##### A. Information on highly possible exposure route

- ☐ Inhaling through respiratory organ  
: No data available
- ☐ Taking through the mouth  
: No data available
- ☐ Skin contact  
: No data available
- ☐ Eyes contact  
: No data available

##### B. Delayed, acute and chronic influence by short-term and long-term exposure

- ☐ Acute toxicity:
  - Through the mouth : No data available within the extent of selected DATABASE
  - Through the skin : No data available within the extent of selected DATABASE
  - Inhaling : No data available within the extent of selected DATABASE
- ☐ Skin corrosiveness/ stimulation: No data available within the extent of selected DATABASE
- ☐ Severe eyes damage/Stimulation: No data available within the extent of selected DATABASE
- ☐ Respiratory organ hypersensitiveness: No data available within the extent of selected DATABASE
- ☐ Skin hypersensitiveness: No data available within the extent of selected DATABASE
- ☐ Carcinogenic: No data available within the extent of selected DATABASE
- ☐ Reproductive cell mutagenicity: No data available within the extent of selected DATABASE
- ☐ Reproductive toxicity: No data available within the extent of selected DATABASE
- ☐ Target organ whole body toxicity (1 time exposure): No data available within the extent of selected DATABASE
- ☐ Target organ whole body toxicity (repeated exposure): No data available within the extent of selected DATABASE
- ☐ Inhale harmfulness : No data available within the extent of selected DATABASE

<b>C. Numerical measure of toxicity (acute toxicity assumed values) :</b>	No data available
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## 12. Ecological Information

### A. Aquatic and land animal ecological toxicity:

- |                                    |                   |
|------------------------------------|-------------------|
| <input type="radio"/> Fishes : :   | No data available |
| <input type="radio"/> Crustacean : | No data available |
| <input type="radio"/> Algal :      | No data available |

### B. Residual and resolvability:

- |                                       |                   |
|---------------------------------------|-------------------|
| <input type="radio"/> Residual :      | No data available |
| <input type="radio"/> Resolvability : | No data available |

### C. Living organism condensability:

- |  |                   |
|--|-------------------|
| <input type="radio"/> Biodegradability : | No data available |
| <input type="radio"/> Condensability :   | No data available |

### D. Soil movability:

No data available

### E. Other harmful influence:

No data available

## 13. Waste Disposal

### A. Method of disposal

: No data available

### B. Matters that require attention when disposing(including the method of disposing contaminated container and packing)

: No data available

## 14. Transport Information

### # Glass cloth

- |   |                   |
|---|-------------------|
| A. UN number:   | No data available |
| B. UN optimal shipping name:  | No data available |
| C. Degree of danger in transportation:  | No data available |
| D. Container grade:   | No data available |
| E. Marine pollution material:   | No data available |
| F. Special safety measures necessary, or necessary for user to know about the transportation or means of transportation : |                   |
| <input type="radio"/> Kinds of emergency measures in case of fire:  | No data available |
| <input type="radio"/> Kinds of emergency measures in case of leaking:   | No data available |

## 15. Information on Laws and Regulations

### # Glass cloth

- |   |                   |
|---|-------------------|
| A. Regulation by Industry Safety and Health Law :                         | No data available |
| B. Regulation by Harmful Chemical Material Management Law :               | No data available |
| C. Regulation by Dangerous Material Safety Management Law :               | No data available |
| D. Regulation by Waste Management Law :                                   | No data available |
| E. Other regulation by domestic and foreign laws :                        |                   |
| <input type="radio"/> Residual organic pollution material management law: | No data available |
| <input type="radio"/> EU Classification Information                       |                   |
| - Determined classification result:                                       | No data available |
| - Danger phrase :   | No data available |
| - Prevention measure phrase:  | No data available |
| <input type="radio"/> US management information                           |                   |
| '- OSHA 7 Regulation  | No data available |
| '- CERCLA 103 Regulation (40CFR302.4) :                                   | No data available |
| '- EPCRA 302 Regulation (40CFR355.30) :                                   | No data available |
| '- EPCRA 304 Regulation (40CFR355.40) :                                   | No data available |
| '- EPCRA 313 Regulation (40CFR372.65) :                                   | No data available |

<input type="radio"/> Rotterdam Agreement Material :	No data available
<input type="radio"/> Stockholm Agreement material :	No data available
<input type="radio"/> Montreal Protocol material :	No data available

## 16. Other information

<b>A. Source of the material :</b>	<p>OECD Screening Information Data Set(<a href="http://webnet.oecd.org/hpv/UI/Search.aspx">http://webnet.oecd.org/hpv/UI/Search.aspx</a>)</p> <p>European chemical Substances Information System(ECB-ESIS)(<a href="http://ecb.jrc.it/esis">http://ecb.jrc.it/esis</a>)</p> <p>International Uniform Chemical Information Database(IUCLID)(<a href="http://ecb.jrc.it/esis">http://ecb.jrc.it/esis</a>)</p> <p>National Library of Medicine(NLM)(<a href="http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM">http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM</a>)</p> <p>National Library of Medicine/Hazardous Substances Data Bank(NLM/HSDB)(<a href="http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB">http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB</a>)</p> <p>International Chemical Safety Cards (ICSC)(<a href="http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/index.htm">http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/index.htm</a>)</p> <p>National Emergency Management Agency(<a href="http://www.nema.kr/hazmat/main/main.jsp">http://www.nema.kr/hazmat/main/main.jsp</a>)</p> <p>Chemical Substances Hazard Assessment Report/Initial Risk Assessment Report(<a href="http://www.safe.nite.go.jp/english/sougou/view/TotalSrchnInput_en.faces">http://www.safe.nite.go.jp/english/sougou/view/TotalSrchnInput_en.faces</a>)</p> <p>NITE(<a href="http://www.safe.nite.go.jp/ghs/h18_list.html">http://www.safe.nite.go.jp/ghs/h18_list.html</a>)</p> <p>The ECOTOXicology database (ECOTOX)(<a href="http://cfpub.epa.gov/ecotox/quick_query.htm">http://cfpub.epa.gov/ecotox/quick_query.htm</a>)</p> <p>Akron University(<a href="http://ull.chemistry.uakron.edu/erd/">http://ull.chemistry.uakron.edu/erd/</a>)</p> <p>Emergency Response Guidebook(2008)</p> <p>International Agency for Research on cancer(IARC)(<a href="http://monographs.iarc.fr/ENG/Classification/index.php">http://monographs.iarc.fr/ENG/Classification/index.php</a>)</p>
<b>B. The first date of Making :</b>	October 27 2017
<b>C. Number of Amendment and the last date of amendment :</b>	2/December 20 2023
<b>D. Others</b>	

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