

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Carbon : JvY Prepreg**

Revision date: 15.05.2020

Page 1 of 11

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Carbon Fabric Prepreg

**Further trade names**

H300, H310 and H312

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

resin

Reserved for industrial and professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	R&G Faserverbundwerkstoffe GmbH	
Street:	Im Meißel 7 - 13	
Place:	D-71111 Waldenbuch	
Post-office box:	1145	
	D-71107 Waldenbuch	
Telephone:	+49-7157-530460	Telefax: +49-7157-530470
e-mail:	info@r-g.de	
Internet:	www.r-g.de	
Responsible Department:	Management	

**1.4. Emergency telephone number:** Vergiftungs-Informations-Zentrale Freiburg  
Tel: +49 (0)761 19240

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

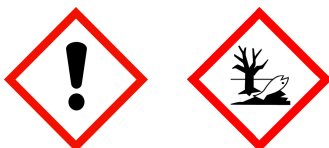
Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight &lt;= 700)

**Signal word:** Warning**Pictograms:****Hazard statements**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 2 of 11

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P264 Wash hands thoroughly after handling.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P501 Dispose of waste according to applicable legislation.

### Special labelling of certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)			50 - 95 %
	500-033-5	603-074-00-8		
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
461-58-5	Cyanoguanidine			5 - 10 %
	207-312-8			

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Self-protection of the first aider. No direct artificial respiration to be given by first aider. Take off immediately all contaminated clothing and wash it before reuse.

#### After inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Medical treatment necessary.

Following inhalation: Hazardous combustion products: Symptoms / delayed effects

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Get medical advice/attention. Rinse mouth immediately and drink plenty of water. Remove casualty to fresh air and keep warm and at rest. Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Never give

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 3 of 11

anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

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

Irritating to eyes and skin. Conjunctival redness. erythema (redness). May cause an allergic skin reaction. After ingestion: Gastrointestinal complaints.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

### **5.2. Special hazards arising from the substance or mixture**

Heating causes rise in pressure with risk of bursting. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Metal oxide smoke, toxic.

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

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Remove persons to safety. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### **6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Remove persons to safety. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

Stop leak if safe to do so. Move undamaged containers from immediate hazard area if it can be done safely. Prevent spread over a wide area (e.g. by containment or oil barriers). Stay upwind/keep distance from source. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

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

#### **Advice on safe handling**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. When using do not eat, drink or smoke.

#### **Further information on handling**

Avoid release to the environment. People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

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

#### **Requirements for storage rooms and vessels**

Keep/Store only in original container. Keep container tightly closed in a cool, well-ventilated place. Store in a dry place. Protect from sunlight. Provide for retaining containers, eg. floor pan without outflow.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 4 of 11

#### Hints on joint storage

Do not store together with: Strong acid, Base, Oxidising agent, strong, Food and feedingstuffs.

#### Further information on storage conditions

storage temperature: 2 - 40 °C

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

resin

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)			
	Worker DNEL, acute	dermal	systemic	8,33 mg/kg bw/day
	Worker DNEL, acute	inhalation	local	12,25 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	systemic	12,25 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	8,33 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	12,25 mg/m <sup>3</sup>
	Consumer DNEL, acute	dermal	systemic	3,571 mg/kg bw/day
	Consumer DNEL, acute	oral	systemic	0,75 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	3,571 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0,75 mg/kg bw/day
461-58-5	Cyanoguanidine			
	Worker DNEL, acute	inhalation	systemic	76,5 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	30,1 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	15,3 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	6,5 mg/kg bw/day
	Consumer DNEL, acute	inhalation	systemic	56 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	systemic	11,2 mg/m <sup>3</sup>
	Consumer DNEL, long-term	oral	systemic	6,5 mg/kg bw/day

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 5 of 11

### PNEC values

CAS No	Substance	Value
Environmental compartment		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	
Freshwater		0,006 mg/l
Freshwater (intermittent releases)		0,018 mg/l
Marine water		0,0006 mg/kg
Marine water (intermittent releases)		0,018 mg/l
Freshwater sediment		0,996 mg/kg
Marine sediment		0,0996 mg/kg
Secondary poisoning		11 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,196 mg/kg
461-58-5	Cyanoguanidine	
Freshwater		2,5 mg/l
Freshwater (intermittent releases)		10 mg/l
Marine water		0,25 mg/l
Marine water (intermittent releases)		10 mg/l
Freshwater sediment		5,83 mg/kg
Marine sediment		0,58 mg/kg
Secondary poisoning		278 mg/kg
Micro-organisms in sewage treatment plants (STP)		34 mg/l
Soil		100 mg/kg

### 8.2. Exposure controls



#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

#### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Wash contaminated clothing before reuse. Used working clothes should not be worn outside the work area. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

Wear protective gloves. (EN ISO 374)

Suitable material:

Butyl caoutchouc (butyl rubber), EVAL  
Breakthrough time (maximum wearing time): > 480 min

NBR (Nitrile rubber), CR (polychloroprene, chloroprene rubber)

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Carbon Fibre Prepreg**

Revision date: 15.05.2020

Page 6 of 11

Breakthrough time (maximum wearing time): 10 &lt; Breakthrough time (maximum wearing time) &gt; 480 min

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls**

exceeding exposure limit values: Exhaust air scrubber

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid	
Colour:	No data available	
Odour:	No data available	
pH-Value:		No data available
<b>Changes in the physical state</b>		
Melting point:		No data available
Initial boiling point and boiling range:		No data available
Flash point:		No data available
<b>Flammability</b>		
Solid:		No data available
Gas:		No data available
<b>Explosive properties</b>		
No data available		
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Ignition temperature:		No data available
<b>Auto-ignition temperature</b>		
Solid:		No data available
Gas:		No data available
Decomposition temperature:		No data available
<b>Oxidizing properties</b>		
No data available		
Vapour pressure:		No data available
Density:		No data available
Water solubility:		No data available
<b>Solubility in other solvents</b>		
No data available		
Partition coefficient:		No data available
Viscosity / dynamic:		No data available
Viscosity / kinematic:		No data available

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 7 of 11

Vapour density:

No data available

Evaporation rate:

No data available

### 9.2. Other information

Odour threshold: No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

No data available

### 10.5. Incompatible materials

Strong acid, Base, Oxidising agent, strong

### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Gases/vapours, toxic

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)				
	oral	LD50 > 2000 mg/kg	Rat	Manufacturer	
461-58-5	Cyanoguanidine				
	oral	LD50 > 10000 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 2000 mg/kg	Rabbit	Manufacturer	

#### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

#### Sensitising effects

Contains epoxy constituents. May produce an allergic reaction. May cause an allergic skin reaction. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700))

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 8 of 11

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Practical experience

### Other observations

After eye contact: Conjunctival redness.

Following skin contact: erythema (redness), Allergic reactions

After ingestion: Gastrointestinal complaints

## SECTION 12: Ecological information

### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)					
	Acute fish toxicity	LC50 1,5 mg/l	96 h	Piscis	Manufacturer	OECD 203
	Acute algae toxicity	ErC50 9,4 mg/l	72 h	Algae	Manufacturer	
	Acute crustacea toxicity	EC50 1,7 mg/l	48 h	Daphnia spec	Manufacturer	OECD 202
	Crustacea toxicity	NOEC 0,3 mg/l	21 d	Daphnia magna (Big water flea)	Manufacturer	OECD 211
461-58-5	Cyanoguanidine					
	Acute fish toxicity	LC50 7700 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	Manufacturer	
	Acute algae toxicity	ErC50 2040 mg/l	96 h	Pseudokirchneriella subcapitata	Manufacturer	
	Acute crustacea toxicity	EC50 3177 mg/l	48 h	Daphnia magna (Big water flea)	Manufacturer	

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)			
	OECD 301F	5 %	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			

### 12.3. Bioaccumulative potential

The product has not been tested.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	3,242

### BCF

CAS No	Chemical name	BCF	Species	Source
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)	31		

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Carbon Fibre Prepreg

Revision date: 15.05.2020

Page 9 of 11

The product has not been tested.

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Dispose of waste according to applicable legislation.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

#### **Inland waterways transport (ADN)**

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

#### **Marine transport (IMDG)**

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

#### **Air transport (ICAO-TI/IATA-DGR)**

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

No information available.

#### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

### SECTION 15: Regulatory information

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **EU regulatory information**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Carbon Fibre Prepreg**

Revision date: 15.05.2020

Page 10 of 11

**Additional information**

Classification according to Regulation (EC) No 1272/2008 [CLP].  
 Labelling according to Regulation (EC) No. 1272/2008 [CLP].  
 Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH).

**National regulatory information****15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Abbreviations and acronyms**

CLP: Classification, labelling and Packaging  
 REACH: Registration, Evaluation and Authorization of Chemicals  
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
 UN: United Nations  
 CAS: Chemical Abstracts Service  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road )  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation  
 intérieures)  
 IMDG: International Maritime Code for Dangerous Goods  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 SVHC: Substance of Very High Concern  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Carbon Fibre Prepreg**

Revision date: 15.05.2020

Page 11 of 11

**Relevant H and EUH statements (number and full text)**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*