

# SAFETY DATA SHEET

## Fibremod™ FE411SF-9502

Version 1.0

Revision Date 01/14/2022

Former date -

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Fibremod FE411SF-9502

#### Manufacturer or supplier's details

Supplier : Borealis Compounds Inc  
176 Thomas Road, NJ 07865 Port Murray, United States of America (USA)  
Telephone: +1 908 850 6200

E-mail address : [sds@borealisgroup.com](mailto:sds@borealisgroup.com)

Emergency telephone number : +1 215 207 0061 (regional number, NCEC Carechem 24)  
Borealis Compounds Inc, Borealis North America HSE: 908-850-6200 for Monday – Friday 8-4:30pm excluding holidays

#### Recommended use of the chemical and restrictions on use

Recommended use : Raw material for plastics industry

Restrictions on use : Use only according to our recommendations.

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Eye irritation : Category 2A

#### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
P264 Wash skin thoroughly after handling.  
P280 Wear eye protection/ face protection.

**Response:**

Fibremod is a trademark of the Borealis group.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

### Other hazards

Warning!

May form combustible dust concentrations in air (during processing).

The product burns, but is not classified as flammable.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical name	CAS-No.	Concentration (%)
glass fibre > 6 µm (not carcinogen)	65997-17-3	>= 30 - < 50
Diphosphoric acid, compd. with piperazine	66034-17-1	>= 10 - < 20
carbon black	1333-86-4	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.

In case of skin contact : If molten material comes in contact with the skin, cool with plenty of water. DO NOT remove solidified product, as removal could result in severe tissue damage. Obtain medical attention.

In case of eye contact : Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth with water. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed : Inhalation of dust may irritate the respiratory tract. Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract.

Causes serious eye irritation.

Notes to physician : Treat symptomatically. No specific instructions needed.

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### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water in spread jet, dry chemicals, foam or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Principal toxicant in the smoke is carbon monoxide.

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.

Environmental precautions : Should not be released into the environment.

It is recommended to implement systems and practices (such as Operation Clean Sweep®) to prevent accidental release of plastics in to the environment.

Methods and materials for containment and cleaning up : Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.  
Non-sparking tools should be used.  
Vacuum or sweep up spill.  
All spill of material must be removed immediately to prevent slipping accidents.  
Recycle or dispose loose material properly.  
Do not flush into surface water or sanitary sewer system.

### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Dust from the product gives a potential risk for dust explosion.  
Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. All equipment shall be grounded.

Advice on safe handling : During processing and thermal treatment of the product, small

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amounts of volatile hydrocarbons may be released.  
Provide adequate ventilation.  
Local exhaust ventilation may be necessary.  
Avoid inhalation of dust and decomposition fumes.  
Avoid contact with skin and eyes.

Conditions for safe storage : Safety aspects do not require any special precautions in terms of storage.

Further information on storage stability : Keep in a dry place.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
glass fibre > 6 µm (not carcinogen)	65997-17-3	TWA (Inhalable particulate matter)	5 mg/m <sup>3</sup>	ACGIH
		TWA (fibres)	1 fibres per cubic centimeter	ACGIH
		TWA (fibres)	1 fibres per cubic centimeter	ACGIH
		PEL (Fibrous)	1 fibres per cubic centimeter	CAL PEL
		TWA (fibres)	1 fibres per cubic centimeter	ACGIH
Diphosphoric acid, compd. with piperazine	66034-17-1	TWA (Inhalable fraction and vapor)	0.03 ppm (piperazine)	ACGIH
carbon black	1333-86-4	TWA	3.5 mg/m <sup>3</sup>	NIOSH REL
		TWA	3.5 mg/m <sup>3</sup>	OSHA Z-1
		TWA	3.5 mg/m <sup>3</sup>	OSHA P0
		TWA	0.1 mg/m <sup>3</sup> (PAHs)	NIOSH REL
		TWA (Inhalable particulate matter)	3 mg/m <sup>3</sup>	ACGIH
		PEL	3.5 mg/m <sup>3</sup>	CAL PEL

Engineering measures : Provide adequate ventilation.  
Local exhaust ventilation may be necessary.

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It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

### Personal protective equipment

Respiratory protection : In case of dust development use dust mask.  
In the case of vapour formation use a respirator with an approved filter.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection

Remarks : Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection : Safety glasses

Skin and body protection : Protective clothing

Hygiene measures : When using do not eat, drink or smoke.  
Wash hands before breaks and at the end of workday.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : pellets  
Colour : black  
Odour : odourless  
pH : Not applicable insoluble  
Melting point/range : 130 - 170 °C  
Boiling range : Decomposes on heating.  
Flash point : Not applicable (solid)

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Evaporation rate	: Not applicable (solid)
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable (solid)
Density	: 1.3 - 1.5 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: Not applicable insoluble
Viscosity	
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: The product is a stable thermoplastic, with no chemical reactivity.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: None known.
Hazardous decomposition products	: Under fire conditions: Carbon monoxide

During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

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

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

#### Components:

#### Diphosphoric acid, compd. with piperazine:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

#### Skin corrosion/irritation

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

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

#### Skin sensitisation

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

#### Respiratory sensitisation

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

#### Germ cell mutagenicity

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

#### Carcinogenicity

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

**IARC** Group 2A: Probably carcinogenic to humans

glass fibre > 6 µm (not carcinogen) 65997-17-3

Group 2B: Possibly carcinogenic to humans

glass fibre > 6 µm (not carcinogen) 65997-17-3

carbon black 1333-86-4

#### OSHA

No component of this product present at levels greater than or

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equal to 0.1% is on OSHA's list of regulated carcinogens.

### NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

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.

### Aspiration toxicity

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

### Further information

#### Product:

Remarks: Inhalation of dust may irritate the respiratory tract. Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract.

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

No data available

### Persistence and degradability

#### Product:

Biodegradability : Remarks: Not readily biodegradable.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Does not accumulate in organisms.

### Mobility in soil

#### Product:

Mobility : Remarks: Not expected to adsorb on soil.

### Other adverse effects

#### Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82



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Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Should not be released into the environment.

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : This substance, when discarded or disposed of is not specifically listed as a hazardous waste in Federal regulations. However, it could be hazardous if it is considered toxic, corrosive, ignitable or reactive according to Federal definitions (40 CFR 261). Additionally, it could be designated as hazardous waste if it is mixed with or comes in contact with a hazardous waste. If such contact or mixing may have occurred, check 40 CFR 261 to determine whether it is a hazardous waste.  
The transportation, storage, treatment and disposal of this waste material must be conducted in accordance with all applicable Federal, state and local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

Not regulated as a dangerous good

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### 49 CFR

Not regulated as a dangerous good

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### Special precautions for user

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

## SECTION 15. REGULATORY INFORMATION

Borealis certifies that all chemical substances in this shipment comply with all applicable rules or orders under TSCA and that Borealis is not offering a chemical substance for entry in violation of TSCA or any applicable rule or order under TSCA.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

The product is classified and labelled in accordance with Hazard Communication Standard 2012 (29 CFR 1910.1200)

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

### US State Regulations

#### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know

glass fibre > 6 µm (not carcinogen)	65997-17-3
polypropene	9003-07-0
Diphosphoric acid, compd. with piperazine	66034-17-1
Melamine polyphosphate	218768-84-4

#### Maine Chemicals of High Concern

Product does not contain any listed chemicals

#### Vermont Chemicals of High Concern

lead powder [particle diameter < 1 mm]	7439-92-1
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#### Washington Chemicals of High Concern

Product does not contain any listed chemicals

#### California Prop. 65

WARNING: This product can expose you to chemicals including glass fibre > 6 µm (not carcinogen), carbon black, magnesium silicate, lead powder [particle diameter < 1 mm], which is/are known to the State of California to cause cancer, and methanol, lead powder [particle

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diameter < 1 mm], which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### California Permissible Exposure Limits for Chemical Contaminants

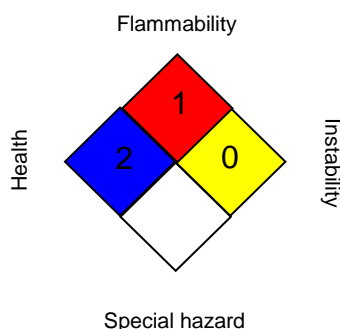
glass fibre > 6 µm (not carcinogen)

65997-17-3

## SECTION 16. OTHER INFORMATION

### Further information

#### NFPA:



#### HMIS® IV:

HEALTH	/	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Sources of key data used to compile the Safety Data Sheet : Safety data sheets of raw material suppliers.

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#### Disclaimer

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

**BOREALIS MAKES NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN. NOTHING HEREIN SHALL CONSTITUTE ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**IT IS THE CUSTOMER'S RESPONSIBILITY TO INSPECT AND TEST OUR PRODUCTS IN ORDER TO SATISFY ITSELF AS TO THE SUITABILITY OF THE PRODUCTS FOR THE**

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**CUSTOMER'S PARTICULAR PURPOSE. THE CUSTOMER IS RESPONSIBLE FOR THE APPROPRIATE, SAFE AND LEGAL USE, PROCESSING AND HANDLING OF OUR PRODUCTS.**

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