

# XFLO Micro TB - Insulation

March 2021 - Version 1

## Section 1 - Chemical Product and company identification

<b>Product Name -</b>	<b>HEXATHERM</b>
<b>Use -</b>	Low profile underfloor heating panel
<b>Company -</b>	<b>Cellecta Limited</b> , Bounty House, Medway Valley Park, Rochester, Kent, ME2 2NF
<b>Email/Web Address -</b>	technical@cellecta.co.uk <span style="float: right;">www.cellecta.co.uk</span>
<b>Emergency Contact No. -</b>	During office hours - 01634 296677. Outside of these please contact a medical professional.

## Section 2 - Composition/Information on Ingredients

<b>Component</b>	<b>CAS #</b>	<b>EG #</b>
Polystyrene	9003-53-6	500-008-9
Carbon dioxide (blowing agent)	00124-38-9	204-696-9
Isobutane (co-blowing agent)	00075-28-5	200-857-2
Brominated preparation with synergic (flame retardant)	1889-67-4	217-568-2
Solvent Dimethylether	115-10-6	204-065-8
Talcum	-	-
Colouring additive	-	-
Product labeled according to regulation CLP EC 1272/2008		

## Section 3 - Hazards Identification

No particular hazards are known

<b>Appearance -</b>	Yellow, odorless foam board with closed cells
<b>Emergency Overview -</b>	To prevent ignition, avoid open fire, smoking and high temperatures. Grinding, sawing or other treatments, can produce dust particles which may under specific conditions form explosive dust atmospheres that can be ignited. Exposure to dust may be irritating to eyes, nose and throat.

## Potential Health Effects

<b>Inhalation -</b>	Dust produced by grinding, Sawing or other treatments, may cause irritation of the nose, throat and respiratory tract.
<b>Skin contact -</b>	No effects expected.
<b>Eye contact -</b>	Dust produced by grinding, Sawing or other treatments, may cause irritation of the eyes.
<b>Ingestion -</b>	Ingestion of the product can cause gastrointestinal irritation and/or disturbances.
<b>Notes to physician -</b>	No specific antidote

## Section 4 - First aid measures

<b>Inhalation -</b>	Move person to fresh air. If effects occur, consult a physician.
<b>Skin Contact -</b>	Wash skin with plenty of water.
<b>Eye Contact -</b>	Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, consult a medical professional.
<b>Ingestion -</b>	Consult a medical professional. Do not give laxatives and don't induce vomiting.

## Section 5 - Fire fighting measures

<b>Flash Point -</b>	320°C Flash ignition temperature according ASTM D1929 (B)
<b>Extinguishing media -</b>	Foam, water, carbon dioxide

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## Section 5 - Fire fighting measures (continued)

### Hazardous combustion products -

Under fire conditions, polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic or irritating compounds. Primary combustion products are Carbon Dioxide and Styrene.

### Other Important flammability information -

When the product is stored in closed containers, a flammable atmosphere can develop.

### Fire fighting instructions - Protective Equipment for fire fighters -

Keep people away. Isolate fire perimeter

Wear positive-pressure, self containing breathing apparatus and protective fire fighting clothes.

## Section 6 - Accidental Release Measures

### Protect people -

Clear non-emergency personnel from area. Use appropriate equipment.

### Environmental protection -

Firewater may be toxic.

### Clean up -

Pick up, sweep up dust and pieces. Depose in a suitable container.

## Section 7 - Handling and Storage

### Handling -

Prevent cumulation of dust. In order to prevent build-up of combustible vapours, do not store large quantities in an unventilated space.

### Storage -

Flammable vapours may cumulate.

The storage should be ventilated.

Storage, use and handling areas should be non-smoking areas.

The material should never be exposed to a flame or other ignition sources.

Take the necessary measurements to prevent build-up of static electricity.

## Section 8 - Exposure Controls/Personal Protection

### Engineering controls -

Provide general and/or local exhaust ventilation to control airborne levels below exposure guidelines.

### Personal protective equipment

### Eye and face protection -

Use safety glasses

### Skin protection -

Wear clean body-covering clothes.

### Respiratory protection -

Provide general and/or local exhaust ventilation to control airborne levels below exposure guidelines.

## Section 9 - Physical and Chemical Properties

### Appearance -

Yellow foam board

### Physical state -

Solid

### Odor -

Odorless

### Specific gravity -

30 - 40kg/m<sup>3</sup>

### pH -

N/A

### Solubility (water) -

Insoluble

### Softening point -

104°C

### Decomposition -

≥320°C (Flash point)

180°C (Physical/chemical degradation)

## Section 9 - Physical and Chemical Properties (continued)

Upper and lower explosion limits (Vol%):

UEL:	DME	26,2
LEL:	DME	3,3
UEL:	Isobutane	8,5
LEL:	Isobutane	1,8

## Section 10 - Chemical Stability and Reactivity

### Stability -

Thermally stable in typical use conditions

### Conditions to avoid -

Max use temperature - 75°C  
Avoid temperatures above 250°C  
Avoid direct sunlight

### Incompatibility with other materials -

Avoid contact with oxidizing materials, aldehydes, amines, esters, fuel and organic solvents.

### Acute and chronic toxicity - Carcinogenicity -

Dust from grinding, sawing, drilling may cause mechanical irritation of eyes and skin. There are no known chronic health effects connected with long term use of the product.

## Section 12 - Ecological Information

### Ecotoxicity -

There is a high probability that the product is not acutely harmful to aquatic organisms. Inhibition of degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Toxicity to fish: LC 50 (96 h) >500 mg/l, *Leuciscus idus* (DIN 38412 Part 15)

**Persistence and degradability -** Experience shows this product to be inert and non-degradable. The product has not been tested. The statement has been derived from products of a similar structure and composition.

**Bioaccumulation potential -** The product will not be readily bioavailable due to its consistency and insolubility in water.

## Section 13 - Disposal Considerations

All disposal methods should be in accordance with federal/or local regulations

## Section 14 - Transport Information

<b>Land transport -</b>	ADR	Not classified as dangerous goods
	RID	Not classified as dangerous goods
<b>Inland waterway transport -</b>	ADNR	Not classified as dangerous goods
<b>Sea transport -</b>	IMDG	Not classified as dangerous goods
<b>Air transport -</b>	IATA	Not classified as dangerous goods

# XFLO Micro TB - Facing

March 2021 - Version 1

## Section 1 - Identification of the substance/preparation and the company

<b>Product Name -</b>	<b>XFLO Micro TB</b>
<b>Use -</b>	Low profile underfloor heating panel
<b>Company -</b>	<b>Collecta Limited</b> , Bounty House, Medway Valley Park, Rochester, Kent, ME2 2NF
<b>Email/Web Address -</b>	technical@collecta.co.uk <span style="float: right;">www.collecta.co.uk</span>
<b>Emergency Contact No. -</b>	During office hours - 01634 296677. Outside of these please contact a medical professional.

## Section 2 - Hazards Identification

By its composition this product is not classified as dangerous in the sense of European Directives 67/548/EC and 99/45/EC and their latest amendment.

This section describes the possible dangers of the article, i.e. in relation to its shape, dimensions and other physical properties.

Mechanical irritation (itching) Contact with flying dust and flying fibres (inhalation).

See section 11 for detailed explanations.

## Section 3 - Composition/Information on ingredients

**Fabric** - Continuous glass fibre products (CFGF) are articles within the meaning of REACH (1907/2006/ER). CFGF products are made of glass which is given a specific shape (filament) and dimensions (filament diameter). The glass fibres combined to a glass fibre strand are provided with a surface treatment (sizing). The thread is further processed to a specific product according to the later use of the article. The coating is a chemical mixture, i.e. an adhesive, a film former as well as a polymer resin / polymer emulsion. The proportion of coating is usually less than 1% and in some specific cases up to 2.5%. The sizing consists essentially of high molecular polymers which are not included in the European List of Notified Chemical Substances (EILINCS) or in the following additions (EINECS) as dangerous substances. In the case of CFGF-based glass mesh fabrics, a binding agent is added in a second step. The binder (mixture of polymer coating) usually represents less than 20% of the product weight. The chemical composition of continuous filaments for each product can be found in the technical data sheets.

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

No special measures necessary

#### After Eye Contact

Rinse immediately with plenty of water, even under the eyes for at least 15 minutes. Do not rub or scratch your eyes. Consult a specialist if eye irritation persists

#### After Skin Contact

In case of irritation wash off immediately with soap and cold water. **DO NOT** use warm water, as this will damage the skin. The pores can be opened so that the fibres can penetrate further. **DO NOT** rub or scratch the affected areas, remove contaminated clothing. Consult a specialist if skin irritation persists.

#### After Inhalation

If the upper respiratory tract is irritated, get some fresh air. If symptoms persist, seek medical attention.

## Section 5 - Fire Fighting Measures

### 5.1 Extinguishing Media

Adapt water, dry chemicals, foam and carbon dioxide fire extinguishing measures to the environment.

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## 5.2 Extinguishing media unsuitable for safety reasons

None

## 5.3 Special hazards arising from the substance or mixture

None known, the facing of the XFLO Micro TB is non-flammable and do not support combustion. Only the coating and/or binder is flammable and could release small amounts of gases (CO<sub>2</sub>/CO/NO<sub>x</sub>) in the event of greater or persistent heat or fire.

## 5.5 Additional information

N/A

## Section 6 - Accidental Release Measure

### 6.1 General information

No special measures necessary

## Section 7 - Handling and storage

### 7.1 Handling

#### 7.1.1 Notes on safe handling -

No special measures necessary. Avoid dust formation.

#### 7.1.2 Information on fire and explosion protection -

No special measures necessary.

### 7.2 Storage

#### 7.2.1 Requirements for storage rooms and containers -

Storage rooms should be well ventilated. The storage room temperature should not exceed 30°C. The relative humidity should be between 50 and 75%. Store product only in closed original packaging.

#### 7.2.2 Information on storage in one common storage facility -

None

#### 7.2.3 Further information on storage conditions -

None

## Section 8 - Limitation and monitoring of exposure/personal protective equipment

### 8.1 Additional information on the design of technical installations

N/A

### 8.2 Components with workplace-related limit values to be monitored

The product does not contain any relevant quantities of substances, with workplace-related limit values to be monitored. The continuous glass fibres are not breathable, but certain mechanical processes may produce fly ash or fly fibres (see section 11). The following occupational exposure limits apply to exposure to flying fibres and/or dust.

Exposure limit(s) - NOTE: The user of CFGF products must comply with national regulations for the health protection of workers. Below are some occupational exposure limit values for certain European countries.

	Breathable dust	Total dust	Breathable fibres
ACGIH	3mg/m <sup>3</sup>	10mg/m <sup>3</sup>	1 fibres/ml
Austria	6mg/m <sup>3</sup> (fine)		0.5 fibres/ml
Denmark	5mg/m <sup>3</sup>	10mg/m <sup>3</sup>	1 fibres/ml
Finland		10mg/m <sup>3</sup>	1 fibres/ml
France (France)		10mg/m <sup>3</sup>	1 fibres/ml
Germany (German)	3mg/m <sup>3</sup>	4mg/m <sup>3</sup>	0.25 fibres/ml
Ireland	5mg/m <sup>3</sup>		2 fibres/ml
Italy	3mg/m <sup>3</sup>	10mg/m <sup>3</sup>	1 fibres/ml
Netherlands	2mg/m <sup>3</sup>	10mg/m <sup>3</sup>	1 fibres/ml

## 8.2 Components with workplace-related limit values to be monitored (continued)

	Breathable dust	Total dust	Breathable fibres
Norway	5mg/m <sup>3</sup>	10mg/m <sup>3</sup>	1 fibres/ml
Portugal		4mg/m <sup>3</sup>	1 fibres/ml
Spain	3mg/m <sup>3</sup>	10mg/m <sup>3</sup>	1 fibres/ml
Great Britain	5mg/m <sup>3</sup>	10mg/m <sup>3</sup>	2 fibres/ml

## 8.3 Personal protective equipment

### 8.3.1 General information

No special measures necessary

### 8.3.2 Respiratory protection

Not applicable with adequate ventilation/suction. Only in procedures where larger amounts of dust are released must at least EEG-approved FP1 dust masks or preferably FP2 dust masks be worn. For example, according to the guidelines of the American National Institute For Occupational Safety And Health (NIOSH) and the Mine Safety And Health Administration (MSHA), 3M 8710 or 3M 9900 respirators can be used.

### 8.3.3 Hand protection

protective gloves

### 8.3.4 Eye protection

Safety glasses with side protection

### 8.3.5 Body protection

Cotton clothing with long sleeves and long trousers

### 8.3.6 Other

Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Avoid dust getting into shoes (e.g. boots) and gloves. It is recommended to wear sleeves close to the wrist and the trouser legs over the boots. Take off and wash contaminated clothing before re-use.

## 8.4 Limitation and monitoring of environmental exposure

Not applicable

## Section 9 - Physical and Chemical Properties

### 9.1 General information

**9.1.1 Form** - Solid

**9.1.2 Colour** - White or off-white

**9.1.3 Odour** - Neutral

### 9.2 Important health, safety and environmental information

**9.2.1 Form** - Not applicable

**9.2.2 Change of state** - Glass: Softening point > 600°C Coating / Binder: Temperature resistant up to approx. 200°C

**9.2.3 Flash point** - Not applicable

**9.2.4 Ignition temperature** - The product is not self-igniting

**9.2.5 Explosion limits** - The product is not explosive

**9.2.6 Vapour pressure** - The product is not explosive

**9.2.7 Density (molten glass)** - Approx. 2.5 - 2.7 g/cm<sup>3</sup>

## Section 10 - Stability and reactivity

### 10.1 General information

No decomposition when stored and used as directed.

**10.1.1 Conditions to avoid** - No particular dangers to mention.

**10.1.2 Substances to avoid** - Not applicable.

**10.1.3 Hazardous decomposition products** - None under normal conditions of use (in case of fire see section 5).

**10.1.4 Further information** - None

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

The product is not subject to labelling. According to our experience and the information available to us, the product does not cause any adverse health effects if handled properly.

**Acute Toxicity** -

Not applicable.

**Local effects** -

Dust and fibres can cause mechanical irritation of eyes and skin.

The irritation disappears when the contact ends.

Mechanical irritation is not considered as a Health hazards in the sense of the European Directive 67/548/EC on hazardous substances.

Continuous filament glass fibres do not require classification as Irritant (Xi) according to the European Directive 97/69/EC.

Inhalation may cause coughing, irritation of nose and throat and sneezing.

**Long-term effects on health** -

Continuous filament glass fibres are not breathable according to the World Health Organization (WHO) definition.

Breathable fibres have a diameter (d) below 3 µm, a length (l) exceeding 5 µm and an l/d ratio of 3, or more.

Fibres with a diameter of over 3 microns, which is continuous filament glass fibres, do not reach the upper end of the respiratory tract and can therefore not be serious lung cause diseases.

Continuous filament glass fibres are not carcinogenic (see Section 15).

## Section 12 - Environmental Information

### 12.1 General information

No ecotoxic effects known

There are no specific data available for this product. This material is not expected to harm animals, plants or fish.

## Section 13 - Notes on disposal

### 13.1 General information

Disposal in accordance with AVV No: 10 11 12 (glass waste except for that falling under 10 11 11\*)

Adaptation of the waste code to the amended European Waste Catalogue.

Endless filament glass fibre waste is not hazardous waste. European Waste Code No 10 11 03 (glass fibre waste).

## Section 14 - Notes on disposal

Land transport: Classification according to ADR and RID / GGVSE

**14.1.1 Land transport** - Not required to be labelled

**14.1.2 Inland waterway transport** - Not required to be labelled

**14.1.3 Maritime transport** - Not required to be labelled

**14.1.4 Air transport** - Not required to be labelled

**14.1.5 Further information** - No dangerous goods as defined by transport regulations

## Section 15 - Disclosures on legal provisions

### 15.1 General information - Marking according to EC directives

The product is not classified as requiring labelling according to EC Directives / Ordinance on Hazardous Substances (GefStoffV).

### 15.2 National regulations

**15.2.1 Notes on employment restrictions** - None

**15.2.2 Major Accidents Ordinance** - None

**15.2.3 Ordinance on flammable liquids** - Not applicable

**15.2.4 Water hazard class** - Not applicable

**15.2.5 Other regulations and restrictions** - None

## Section 16 - General information

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substance/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substance/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substance/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet has been elaborated for use within the European Union, Switzerland, Iceland, Norway and Liechtenstein. It may be consulted in other countries, where local legislation with regards to the set-up of safety data sheets will take precedence. It is your obligation to verify and apply such local legislation. Use of this safety data sheet is subject to the license and liability limiting conditions as stated in your BIG license or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned/conditions for details.