

 COMPOSITES	MATERIAL SAFETY DATA SHEET	No.	0006 v1
	COMPOSITE COMPONENT	Date	Oct 2020

1. Chemical Product and Company Identification

1.1. Product identification

Name of product: **BM-5**

Description of product: Carbon fibres in the form of a special chopped configuration,
 Substance/mixture/article: infused with a Polyamide 6.6 binder to form a solid sheet.

1.2 Relevant identified uses of the Product and uses advised against:

- 1.2.1 Uses of the product: Tooling and Jig materials in the professional and industrial applications.
- 1.2.2 Uses advised against: This product is only to be used for the intended applications.
 In case of doubt please contact us.

1.3 Company identification:

<i>office:</i>	CFP Composites Ltd Regus Building Central Boulevard Blythe Valley Business Park Solihull B90 8AG United Kingdom	<i>factory:</i>	CFP Composites Ltd Unit 3-5, Pedmore Road Dudley West Midlands DY2 0RF United Kingdom
----------------	---	-----------------	--

1.4 Contact information: info@cfpcomposites.com www.cfpcomposites.com

In case of emergency between 08:00 – 17:00 Monday - Friday

+ 44 (0) 1564 711560 +44 (0) 1384 481136

2. Hazard identification

2.1 Classification of the substance or mixture

This product is not considered to be hazardous.

2.2 Label elements

This product is not subject to labelling.

2.3 Main hazards / harmful effects

Hazards that do not directly lead to a classification:

- This product does not present any hazard for both humans and environment when handled properly.
- Carbon fibre is an electricity conducting material, it may break up into fine particles during machining/cutting/sanding/drilling and may cause electrical short-circuits which could result in damage or the malfunctioning of electrical equipment.
- Finely dispersed carbon fibre may irritate skin, eyes, and mucous membranes.
- Carbon fibre dust may cause electrical short-circuits when contacted to electrical devices.

3. Composition / information on components

3.1 Hazardous components or hazardous complex substances

This product including its components is not considered to be hazardous in sense of the Directive 67/548/EEC and Directive 1999/45/EC.

3.2 Chemical characteristics

Carbon Fibre bonded with a fully cured Polyamide 6.6 resin.

3.3 Hazardous ingredients

This material does not contain any reportable hazardous ingredients.

3.4 Mixtures

Not applicable

3.5 Other substances that are not considered to be dangerous to health and environment

Name	CAS No.	Content %
Carbon Fibre (PAN-based)	7440-44-0	45

Polyamide 6.6 according to the Directive (EG) Nr. 1907/2006 (REACH- Regulation)

The components of this material are embedded into an impenetrable matrix and therefore biologically not available.

Several hazardous components are bound within the polymer matrix and are not dangerous under normal processing and handling conditions. The additives in this material do not pose any risk of danger, if they are not released (by emitted smoke when melted or dusts particles)

4. First aid measures

4.1 General information

- First aider: Pay attention to self-protection – ensure area/person is safe to approach and handle.
- No special first aid measures necessary.
- Remove all persons from danger area and lie them down.
- Never orally infuse something into an unconscious person.
- A vomiting, supine person must be brought into the recovery position.

In case of accident or if you feel unwell, seek medical advice (show MSDS where possible).

4.2 In case of contact with eyes

- If foreign bodies/dust have gotten into the eyes, do not let the victim rub them.
- Check: Remove the victims contact lenses if they are wearing any before continuing to rinse.
- Thoroughly rinse eyes with plenty of clean flowing water for at least 15 minutes holding eyelids apart.
- In case of troubles or persistent symptoms, arrange for transport to the nearest medical facility for examination and treatment by a physician/ophthalmologist as soon as possible.

4.3 In case of ingestion

- Give water to the victim if conscious, but do not make them vomit.
- In case of vomiting, do not let the victim swallow the vomit.
- Do not give anything to ingest to unconscious or a convulsing victim.

4.4 In case of inhalation

- After inhalation of vapours or decomposition products, remove victim to fresh air and kept still.
- If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

4.5 In case of skin contact

- There are no special measures required.
- Wash with plenty water or water and soap after prolonged contact with skin.
- In the event of a visible skin change or other complaints, seek medical advice (show MSDS where possible).
- Change contaminated clothing.

5. Measures in case of fire

5.1 Suitable extinguishing methods

- Use foam, dry extinguishing powder, carbon dioxide (CO₂) or atomized water-mist/fog.

5.2 Un-suitable extinguishing methods

- High power water jet.

5.3 Dangerous combustible products and related risks / Special hazards arising from the substance or mixture

- Emission of toxic gases, carbon monoxide, carbon monoxide.
- Hazardous combustion products: oxides of carbon, silicon, and nitrogen.
- Thermal decomposition can lead to harmful gases and vapours.
- Explosive dust-air mixtures may form, keep away from heat/sparks/open flame/hot surfaces (greater than 210 °C/410 °F).
- No smoking.
- The explosive hazards only refer to the dust, not to the product in its final form.
- Major melted masses may spontaneously ignite in air.

5.4 Advice for fire fighters

- Wear special protective equipment for fire fighters.
- Wear self-contained breathing apparatus and protective suit.
- Keep unprotected persons away.

5.5 Specific risks relating to the fire-fighting measures

- When the product is burnt (greater than 210 °C/410 °F), fine carbon fibre particles may be produced. They may cause electrical short-circuits when contacted to electrical devices.

5.6 Additional information

- Dispose of fire debris and contaminated fire fighter materials/products in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

- The solid form of this product should be handled safely in accordance with current manual handling guidelines.
- Provide adequate ventilation.
- Do not breathe dust; avoid contact with eyes and skin.
- Because fine particles may be dispersed, it is advised to wear a dust mask with P3 type filter.

6.2 Environmental precautions

- No special environmental protection measures required. Avoid worsening the dispersion.
- Do not discharge product unmonitored into the environment.

6.1 Clean-up methods

- Collect mechanically. Avoid dust formation.
- Treat the recovered material as prescribed in the section on waste disposal (sections 13)

6.2 Reference to other sections

- See sections 8 for information on exposure control / individual protection.
- See sections 13 for information on disposal.

7. Handling and storage

7.1 Precautions for safe handling

- Handle in accordance with good hygiene and safety practice.
- Move mechanically where possible.
- If manually handling/moving, do so in a safe manner in accordance with current manual handling guidelines.

7.2 Technical measures

- Material to be handled with care – Do not cut the carbon fibre unnecessarily. Electricity conducting material, do not allow contact with electric current sources.

7.3 Handling precautions

- Avoid the dispersion of loose fibres – Handle the fibre in well ventilated premises (the ventilation devices should be adequate for the material dust being collected). Use a suitable/correct filter system to avoid discharging loose fibres into open air and where there are no electrical appliances or said appliances are protected in sealed or pressurised cases.

- Insulating varnish may be applied to electronic boards and electrical terminals.

7.4 Advise for use and incompatibility with other materials

- Avoid friction which may create loose and flying debris.
- Do not store with foodstuffs.
- Do not store with feeding stuffs.

7.5 Storage

- Store the product in a clean and dry place.
- Keep away from direct sunlight.
- Do not let material freeze.
- Preferably store between 5 - 25 °C / 41 - 77 °F.

7.6 Specific end use(s)

1.2.2 Uses of this product: Tooling and Jig materials in the professional and industrial applications.

1.2.2 Uses advised against:

This product is only to be used for the intended applications.

In case of doubt please contact us (see sections 1.3 and 1.4).

8. Exposure control / individual protection

If dust is created by cutting and ventilation is inadequate, it is advised to wear a dust mask, eye protection, gloves, and clean and dry work wear.

8.1 Exposure limits

- Always analyse your specific working environment and methods.
- When suitable ventilation is used, it can be assumed exposure limits will be not applicable.
- When suitable personal protective equipment is used, it can be assumed exposure limits will be not applicable.

8.2 Individual protective and hygiene measures

- Change contaminated clothing.
- Wash hands before breaks and after work.
- Do not eat or drink while using/handling this product.

8.3 Eye/face protection

- Eye protection: Wear dust protective goggles or dustproof goggles.

8.4 Hand protection

- Hand protection: Always wear protective gloves which conform to EN 374-1/1/2/3 and EN 420 when handling this product.

8.3 Skin protection

- Work wear, which is dust proof, tare resistant and long sleeved.
- Suitable protective skin cream(s).

8.3 Respiratory protection

- Respiratory protection: Use protection mask with P3 type filter in case of dispersion of dust.

9. Physical and chemical properties

9.1 Physical properties

- Form: Filament – solid sheet
- Odour: Slightly
- Colour: Black/Grey
- Volumic mass: 1.2 – 1.5 g/cc

9.2 Specific temperature at which physical state changes

- Boiling point: N/A
- Melting point: > 210 °C/410 °F
- Ignition temperature > 400 °C/752 °F
- Decomposition temperature > 320 °C/608 °F

9.3 Solubility (solubility and solvents)

- Water: Insoluble
- Others: Electricity conducting material

10. Stability and reactivity information

10.1 Chemical stability

- This product is stable under normal environmental conditions and up to 210 °C/410 °F.

10.2 Conditions to avoid

- Temperatures greater than 210 °C/410 °F.
- Avoid greater temperatures exceeding the limitations of the product over long periods of time.

10.3 Incompatible materials to avoid

- | | | |
|------------------------------|--------------------------|-----------|
| • Strong oxidizing agents | • Strong acids and bases | • Acetone |
| • Water based release agents | • | • |
| • | • | • |

10.4 Dangerous decomposition products

When decomposed by heat, e.g. due to overheating during product use, in case of fire or smouldering, the following hazardous fumes may develop:

- | | | |
|-------------------|--------------------|------------------|
| • Nitrogen oxides | • Carbon monoxide | • Carbon dioxide |
| • Nitric oxides | • Hydrogen cyanide | • Sulphur |

11. Toxicological Information

11.1 Exposure limits

- | | |
|----------------------|--|
| • Ingestion: | Possible irritation of the throat |
| • Inhalation: | Possible irritation of respiratory apparatus |
| • Skin contact: | May cause irritations |
| • Contact with eyes: | May cause irritations |

12. Ecological information

- Environment exposure from substances of this preparation is limited due to the physical form of the product.
- Carbon fibre is an electricity conducting material. It may cause short-circuits on contact with electrical devices, especially when loose fibres are dispersed in the area.
- Do not incinerate the product.
- This product is insoluble.

12.1 Toxicity

- Based on the consistency of the product, according to today's knowledge a dispersive spreading into the environment is not to be expected. In sewage plants it may be portioned off mechanically. The product is insoluble.

12.2 Persistence and degradability

Assessment:

- Polyamide 6.6 content: biologically not degradable. Elimination by adsorption to activate sludge.
- The product is poorly soluble in water and therefore can be removed out of the water by mechanical separation in suitable effluent treatment plants.

12.3 Bio accumulative potential

Assessment:

- Due to the solid product and the insolubility in water, the bioavailability of the product is not very likely or expected to occur.

12.4 Mobility in soil

Assessment:

- Insoluble in water.
- The product is slightly mobile in soils.

12.5 Results of PBT and vPvB assessment

- The product does not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

- Ingestion by animals may lead to mechanical intestinal blockage or false feeling of satiety causing starvation.

13. Consideration concerning disposal

13.1 Waste treatment methods

Recommendation:

- Do not allow product to enter surface water or drains.
- Material that cannot be used, reprocessed, or recycled should be disposed of waste according to local applicable legislation at an approved facility.
- Depending on the regulations, waste treatment methods may include, e.g., landfill or special incineration.

13.2 Product disposal according to the regulation in waste in force:

- EWC (European Waste Catalogue): recommendations: 16 03 06
- 16 kind of wastes not described on the list
- 16 03 Manufacturing defective products and unused products
- 16 06 06 other organic wastes than those listed on 16 03 05*

13.3 Disposal of polluted packages according to the regulation in waste in force:

- EWC (European Waste Catalogue): recommendations: 15 01 05
- 15 packages and packaging wastes, absorbents, wipers, filtering materials and protection attire unspecified elsewhere.
- 15 01 packaging and packaging waste (including town waste collected separately)
- 15 01 05 Composite packages

14. Information regarding transportation

- Codes and classifications of international regulations: NA
- Specific transport conditions: NA

15. Regulations information

15.1 Information on EU labelling

- Symbols: NA
- Chemical risk phrases (R-phrases): NA
- EINECS No.:

16. Other information

The information in this document has been gathered from reference materials and product suppliers and is to the best knowledge and belief of CFP Composites Limited accurate and reliable. CFP Composites Limited do not claim that this document is all inclusive and states that it should only be used as a guide. The toxicological effects of components of this product have not been fully investigated. This product should only be used by qualified personnel. The product is for Industrial and Research purposes only. The information is furnished without warranty, expressed, or implied, with respect to the use of this information and CFP Composites Limited assumes no legal responsibility for use or reliance upon the data. The data on this sheet relates only to the specific material designated herein.