

Safety Data Sheet

by Commission Regulation (EC) No 830/2015 (REACH)

Fillamentum PC/ABS



Revision date: 13. 1. 2020/1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1 Identification of the substance / preparation

Product name: Fillamentum PC/ABS

1.2 Application

Use of the substance or mixture: Filaments for 3D printing
Recommended restrictions on use: Designed for professional / industrial use.

1.3 Manufacturer / Supplier:

Company: Fillamentum Manufacturing Czech s.r.o.
Address: nám. Míru 1217
768 24 Hulín
Czech Republic
ID: 29233275
Website: www.fillamentum.com
Telephone: +420 720 060 947
E-mail: helpdesk@fillamentum.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008.

2.2 Label elements

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008.

2.3 Other hazards

Under the recommended processing conditions small amounts of emitted substance (e.g. residual monomers, residual solvents, decomposition products) may be discharged. In succession of overheating during the melting process potentially substances are released, which are considered as harmful and carcinogen. The maximum workplace exposure limits are, where necessary, listed in section 8.

The melted product can cause severe burns.

Results of PBT and vPvB assessment: No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable

3.2 Mixture

Blend of polymers based on acrylonitrile butadiene styrene modified with polycarbonate and N-phenylmaleimide copolymers.

Additional information: No dangerous substances above limits that need to be mentioned are contained.

Safety Data Sheet

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Fillamentum PC/ABS



Revision date: 13. 1. 2020/1

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

First aider needs to protect himself. Remove from exposure. Keep the victim at rest. Do not leave the victim unattended.

Eye contact: In the case of contact with molten product, immediately rinse eyes and eyelids with plenty of water for more than 10 minutes. In case of smoke irritation, wash the eyes with water until the irritation disappears. Get medical attention.

Skin contact: In the case of contact with molten product, wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Do not tear off the solid product from the skin. Get medical attention.

Ingestion: In the case of contact with molten product, rinse mouth with cool water. Get medical attention.

Inhalation: In the case of accidental inhalation of vapours or decomposition products, move to fresh air. If symptoms occur, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

The melted product can cause severe burns.

Inhalation of processing vapours: Can cause skin, eye and respiratory tract irritation.

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: Foam, water spray jet, dry extinguishing powder, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

In case of fire possible release of: nitrogen oxides (NO_x), carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and personal protective equipment.

Additional information: Seal off endangered area. Remove persons to safety. Do not allow water used for extinguishing to enter drains, grounds or waterways.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid the contact with the molten material.

In case of overheating (due to rise of temperature, fumes or smoke are formed), cool the melt in a water bath. Do not breathe the vapours. Wear appropriate protective equipment. Take off contaminated clothing immediately and wash it before reuse.

Provide adequate ventilation. Provide a conveniently located respiratory protective device.

6.2 Environmental precautions

Do not release into the environment. Prevent from entering into drains or water courses.

6.3 Methods and material for containment and cleaning up

Throw into appropriate disposal containers. Recycle or dispose of in compliance with current legislation.

Other information: Caution: This product can cause the floor to be slippery.

Safety Data Sheet

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Fillamentum PC/ABS



Revision date: 13. 1. 2020/1

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advices on safe handling:

In case of melting; Do not overheat to avoid thermal decomposition.
Make sure the air exchange is sufficient and the working rooms are air suctioned.
Avoid exceeding WEL threshold levels. Do not breathe vapours.
Wear appropriate protective equipment. Take off contaminated clothing immediately and wash it before reuse. After work, wash hands and face.
In thermal processing; Risk of skin burns. Avoid the build-up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Storage

Keep the package well closed and dry in a dry and well-ventilated place. Protect from heat. Keep away from food, drink and animal feeding stuffs.

Storage temperature: < 40 °C

7.3 Specific end uses

No information is available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values were tested:

CAS No.	Designation	Type	Limit value
100-41-4	Ethylbenzene	Europe: IOELV: STEL	884 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		Europe: IOELV: TWA	442 mg/m ³ ; 100 ppm (may be absorbed through the skin)
		Great Britain: WEL-STEEL	552 mg/m ³ ; 125 ppm (may be absorbed through the skin)
		Great Britain: WEL-TWA	441 mg/m ³ ; 100 ppm (may be absorbed through the skin)
		Ireland: 15 minutes	884 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		Ireland: 8 hours	442 mg/m ³ ; 100 ppm (may be absorbed through the skin)
100-42-5	Styrene	Great Britain: WEL-STEEL	1080 mg/m ³ ; 250 ppm
		Great Britain: WEL-TWA	430 mg/m ³ ; 100 ppm
		Ireland: 15 minutes	170 mg/m ³ ; 40 ppm
		Ireland: 8 hours	85 mg/m ³ ; 20 ppm
107-13-1	Acrylonitrile	Great Britain: WEL-TWA	4,4 mg/m ³ ; 2 ppm (may be absorbed through the skin)
		Ireland: 8 hours	4,5 mg/m ³ ; 2 ppm (may be absorbed through the skin)

Safety Data Sheet

by Commission Regulation (EC) No 830/2015 (REACH)

Fillamentum PC/ABS



Revision date: 13. 1. 2020/1

8.2 Exposure controls

In case of melting: Provide good ventilation or exhaust system or work with completely self-contained equipment.

Individual protection measures, such as personal protective equipment

Eye protection: Wear tightly sealed goggles according to EN 166.

Hand protection: Wear protective gloves according to EN 374.
Glove material: Nitrile rubber
Layer thickness: 0,11 mm
Breakthrough time: > 480 min
Observe glove manufacturer's instructions regarding penetrability and breakthrough time.

In case of melting: Impervious heat protective gloves according to EN 407

Glove material: Leather

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Skin and body protection: Wear suitable protective clothing.
Take off contaminated clothing immediately and wash it before reuse.
Do not eat, drink or smoke when using.
Before breaks and after work, wash hands and face.
Safety shower and eye wash station should be easily accessible to the work area.

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. The filter class must be suitable for the maximum contaminant concentration (gas, vapour, aerosol or particulates), that may be released while processing the product. In case of exceeded concentration, wear self-contained breathing apparatus.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Safety Data Sheet

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Fillamentum PC/ABS



Revision date: 13. 1. 2020/1

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical Appearance:	Solid, natural or coloured filament
Odour:	characteristic
pH:	Not applicable
Relative evaporation rate (butyl acetate=1)	No data available
Melting point/freezing point:	115-120 °C
Boiling point:	No data available
Flash point:	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature:	Not applicable
Flammability (solid, gas):	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Bulk density:	No data available
Solubility:	
Water solubility	Insoluble substance
Dynamic viscosity:	No data available
Kinematic viscosity:	Not applicable
Explosive properties:	Not explosive
Oxidising properties:	No data available

9.2 Other information

No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable at ambient temperature and under recommended conditions of storage and use.

10.3 Possibility of hazardous reactions

None to our knowledge.

10.4 Conditions to avoid

Moisture. Cannot withstand heat.

10.5 Incompatible materials

Strong acids, alkalis, strong oxidizing agents.

10.6 Hazardous decomposition products

Decomposition products on thermal decomposition (pyrolysis) releases: compound of low molecular weight, carbon monoxide, carbon dioxide.

Thermal decomposition: No data available.

Safety Data Sheet

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Revision date: 13. 1. 2020/1

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (oral):	Lack of data.
Acute toxicity (dermal):	Lack of data.
Acute toxicity (inhalative):	Lack of data.
Skin corrosion/irritation:	Lack of data.
Serious eye damage/irritation:	Lack of data.
Sensitisation to the respiratory tract:	Lack of data.
Skin sensitisation:	Lack of data.
Germ cell mutagenicity/Genotoxicity:	Lack of data.
Carcinogenicity:	Lack of data.
Reproductive toxicity:	Lack of data.
Effects on or via lactation:	Lack of data.
Specific target organ toxicity (single exposure):	Lack of data.
Specific target organ toxicity (repeated exposure):	Lack of data.
Aspiration hazard:	Lack of data.

Other information:

Under the recommended processing conditions small amounts of emitted substance (e.g. residual monomers, residual solvents, decomposition products) may be discharged. In succession of overheating during the melting process potentially substances are released, which are considered as harmful and carcinogen.

Symptoms:

The melted product can cause severe burns.

Following inhalation of processing vapours: Can cause skin, eye and respiratory tract irritation.

After contact with skin:

Degradation products: Following inhalation Remove casualty to fresh air and keep warm and at rest.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No additional information available.

12.2 Persistence and degradability

Product is not easily biodegradable.

Due to the consistency along with the low water solubility of the product a bioavailability is unlikely.

12.3 Bioaccumulative potential

No additional information available.

12.4 Mobility in soil

No additional information available.

12.5 Results of PBT and vPvB assessment

No additional information available.

12.6 Other adverse effects

Avoid the discharge into the environment.

Safety Data Sheet

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste key number:	07 02 13 = Waste plastic.
Recommendation:	Recycling or special waste incineration.
Additional information:	The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal. Clean empty packing can be re-used.

SECTION 14: TRANSPORT INFORMATION

According to: ADR, RID, IMDG, IATA, ADN.

14.1 UN number

Not regulated for transport.

14.2 UN proper shipping name

Proper Shipping Name (ADR):	Not restricted.
Proper Shipping Name (IMDG):	Not restricted.
Proper Shipping Name (IATA):	Not restricted.
Proper Shipping Name (ADN):	Not restricted.
Proper Shipping Name (RID):	Not restricted.

14.3 Transport hazard class

ADR

Transport hazard class(es) (ADR): Not applicable.

IMDG

Transport hazard class(es) (IMDG): Not applicable.

IATA

Transport hazard class(es) (IATA): Not applicable.

ADN

Transport hazard class(es) (ADN): Not applicable.

RID

Transport hazard class(es) (RID): Not applicable.

14.4 Packing group

Packing group (ADR):	Not applicable.
Packing group (IMDG):	Not applicable.
Packing group (IATA):	Not applicable.
Packing group (ADN):	Not applicable.
Packing group (RID):	Not applicable.

14.5 Environmental hazards

Dangerous for the environment:	No
Marine pollutant:	No
Other information:	No supplementary information available

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14.6 Special precaution for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

Carriage prohibited (ADN): No

Not subject to ADN: No

Rail transport

Carriage prohibited (RID): No

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

15.1.1 EU-Regulations

Contains no REACH substances with Annex XVII restrictions

15.1.2 National regulations

No additional information available

15.2 Chemical safety assessment

No additional information available

SECTION 16: OTHER INFORMATION

The information is published in the best knowledge and information of the company. The final usage of the product must be assessed by the user. The company is not responsible for any risks caused by incorrect handling or processing.