

SAFETY DATA SHEET

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

PRODUCT NAME: Fillamentum ABS Extrafill

Revision date: 29.7.2019/3

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

1.1 Identification of the substance / preparation

Product name: Fillamentum ABS Extrafill

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

No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Preparation: Substance

Chemical name	EC-No	CAS-No	Weight %	Classification (1272/2008/EC)	REACH Registration Number
Acrylonitrile-Butadiene-Styrene copolymer	-	9003-56-9	> 98 %	-	No data available
Additives	-	-	≤ 2 %	-	-

Impurities Contributing to Hazard: None

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes: Remove affected persons from the danger area, at the same time ensuring your own safety. Remove all contaminated clothing immediately.

Following inhalation: In case of gases evolving from melted resin, move subject to fresh air. Treat symptomatically.

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Following skin contact:	In case of pellets or powder, wash with water. In case of smelt, wash affected skin area and clothing with plenty of (soap and) water. Seek medical advice.
Following eye contact:	In case of pellets or powder, flush with plenty of water for at least 15 minutes. Seek medical advice if any dust particles still remain. In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes. Seek medical advice if necessary.
Following ingestion:	Induce vomiting. Rinse mouth with water. Seek medical advice if necessary
Self-protection of the first aider:	No data available.

4.2 Most important symptoms and effects, both acute and delayed

Dust: Skin irritation, eye irritation and redness.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. (Decontamination, vital functions.)

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water, foam, dry chemical powder.

5.2 Special hazards arising from the substance or mixture

No hazards known.

5.3 Advice for firefighters

Protective equipment: Self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Pellets or powder remained on ground may cause slipping.

Wear protective equipment.

Ensure adequate ventilation.

Keep away from ignition sources.

Keep unprotected persons away.

6.2 Environmental precautions

Gather pellets and powder thoroughly to avoid birds or fishes taking from draining water.

Do not allow product to reach sewage system or water bodies. Inform respective authorities in case product reaches water, sewage system or soil.

6.3 Methods and material for containment and cleaning up

Recovery if not contaminated or disposal.

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Measures to prevent fire

Prevent from fire around handling area.

Measures to prevent aerosol and dust generation

maintain good housekeeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of powder, electrostatics eliminators and grounding should be fixed to such equipment as air transferring pipes, bag filters and hoppers. Use electrically conductive filters for bag filters.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep the material at a cool dry place. Protect from direct sunlight, rain and violent temperature fluctuation. Fire is inhibited around storage area.

Storage temperature: < 40 °C

Storage stability

Stable under recommended storage conditions.

7.3 Specific end uses

No information is available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits: None established

8.2 Exposure controls

Appropriate engineering controls Install eyes washer and shower in the place of operation. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits

Personal protection

Respiratory protection: Wear masks for cleaning printing machines.

Hand protection: Heat-insulating gloves when handling molten form.

Eye protection: Wear safety glasses for general purpose. Wear chemical goggles for cleaning printing machines

Skin and body protection: Gloves necessary for handling melted resin.

Hygiene measures: Wash hands after handling.

8.3 Environmental exposure controls

Product related measures to prevent exposure: None specific

Instruction measures to prevent exposure: None specific

Organizational measures to prevent exposure: None specific

Technical measures to prevent exposure: None specific

Environmental exposure controls: Do not allow product to reach sewage system or water bodies.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical Appearance:	Solid, natural or coloured filament
Odour:	Odourless or negligible
pH:	Not applicable
Melting/freezing point:	Not determined
Boiling point/boiling range:	Not applicable
Flash point:	404 °C
Evaporation rate:	Not applicable
Flammability (solid, gas)	Not available
Lower explosion limit	Not applicable
Upper explosion limit	see Explosiveness
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density (H ₂ O = 1)	1,03-1,10 g/cm ³
Bulk density	Not available
Solubility:	Not soluble.
Partition Coefficient (n-octanol/water)	Not available
Auto-ignition temperature:	466 °C
Decomposition temperature:	> 300 °C
Viscosity:	Not applicable
Explosive properties:	Not explosive
Oxidising properties:	Not oxidizing

9.2 Other information

No other information is known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal handling and storage conditions.

10.2 Chemical stability

Stable under recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No possible hazardous reactions are known.

10.4 Conditions to avoid

Avoid excessive heat, flames and all sources of ignition.

10.5 Incompatible materials

Not applicable.

10.6 Hazardous decomposition products

Not applicable.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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. May cause irritations.
Eye damage/irritation:	Lack of data. May cause irritations.
Sensitisation to the respiratory tract:	Lack of data. Not to be expected
Skin sensitisation:	Lack of data. Not to be expected
Germ cell mutagenicity/Genotoxicity:	Lack of data. Not to be expected
Carcinogenicity:	Lack of data. Not to be expected
Reproductive toxicity:	Lack of data. Not to be expected
Effects on or via lactation:	Lack of data.
Specific target organ toxicity (single exposure):	Lack of data.
Dusts:	Irritating to eyes, respiratory system and skin.
Specific target organ toxicity (repeated exposure):	Lack of data.

Other information

Styrene:	Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure. It causes lung damages. May be fatal if swallowed and enters airways. Causes serious eye irritation. Causes skin irritation.
Acrylonitrile:	Toxic by inhalation, in contact with skin and if swallowed. May cause cancer. Suspected of damaging the unborn child. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage.
1,3-Butadiene:	May cause cancer. May cause genetic defects.

Symptoms

Dust:	Can cause skin, eye and respiratory tract irritation. The melted product can cause severe burns. Thermal treatment
Processing:	Irritating to eyes, respiratory system and skin. In case of ingestion: Swallowing may cause gastrointestinal irritation and pain of guts.

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Short-term aquatic toxicity

Based on available data on the constituents the classification criteria are not met.
LC(50)mixture = 5.78 mg/l (additivity and summation method, toxicity information available for 92,5 % of the mixture)

Long-term aquatic toxicity

Based on available data on the constituents the classification criteria are met and the mixture is therefore classified as Aquatic Chronic 1.
NOEC mixture = 0.0079 mg/l (additivity and summation method, toxicity information available for 78 % of the mixture)

12.2 Persistence and degradability

Further Information

Biodegradation: Product is not readily biodegradable.
The product is likely to persist in the environment.

Effects in sewage plants:

In sewage treatment plants it may be separated mechanically.

12.3 Bioaccumulative potential

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

According to the revised Annex XIII of regulation (EC) 1907/2006 and (EC) 253/2011: No information available on the product as such.

12.6 Other adverse effects

General information: Do not allow to enter into groundwater, surface water or drains.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal:

Dispose in accordance with the current local regulations.

Waste treatment-relevant information:

Inadequate incineration may generate toxic gases such as CO, HCN, AN and SM.

SECTION 14: TRANSPORT INFORMATION

According to: ADR, RID, AND, IMDG, IATA/ICAO.

14.1 UN number

Not regulated.

14.2 UN proper shipping name

Not regulated.

14.3 Transport hazard class

Not regulated.

14.4 Packing group

Not regulated.

14.5 Environmental hazards

Not considered environmentally hazardous based on available data.

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14.6 Special precaution for user

Not applicable.

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

Authorization and / or restrictions on use: None

Other EU regulations: The following substances are under European Seveso regulation:

Substance	Seveso category	Other Seveso category	Seveso concentrations	Categories
Acrylonitrile	2	9ii 7b	10 % ≤ C < 20 %	2
Buta-1,3-diene	0	8	-	-
Styrene	6	-	C ≥ 12,5 %	

Other national regulations: None.

15.2 Chemical safety assessment

For this substance a chemical safety assessment is not yet required.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

AGS	Ausschuss für Gefahrstoffe	LoW	List of Waste
AF	Assessment Factor	MARPOL	Marine Pollution
BCF	BioConcentration Factor	MIE	Minimum Ignition Energy
CAS	Chemical Abstract Service	N°EC	European Commission number
CMR	Carcinogenic, Mutagenic and Reprotoxic	NFPA	National Fire Protection Association
CSR	Chemical Safety Report	NIOSH	National Institute of Occupational Safety and Health
DFG	German Research Foundation	NOEC	No Observed Effect Concentration
DNEL	Derived No Effect Level	NOELR	No Observed Effect Loading Rate
EC	European Commission	OECD	Organisation for Economic Co-operation and Development
EC50	Effective Concentration (required to induce a 50% effect)	OEL	Occupational Exposure Limit
EEC	European Economic Community	OSHA	Occupational Safety and Health Administration
EWC	European Waste Catalogue Code	PBT	Persistent Bioaccumulable Toxique
IDLH	Immediately Dangerous to Life or Health	PNEC	Previsible Non Effect Concentration
IBC	International Bulk Chemical	QSAR	Quantitative Structure-Activity Relationship
Koc	Soil/Water Partition Coefficient	STOT	Specific Target Organ Toxicity
Kow	Octanol/Water Partition Coefficient	TCLo	Toxic Concentration Low
LC50	Lethal Concentration 50	TDLo	Toxic Dose Low
LD50	Lethal Dose 50	UN	United Nations
LEL	Lower Explosive Limit	UVCB	Unknown or Variable Composition Complex Reaction Products, or Biological Materials
LL100	Lethal Loading	vPvB	very Persistent, very Bioaccumulative
LOEC			Lowest Observed Effect Concentration

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Relevant R-phrases and/or H-statements (number and full text):

H220	Extremely flammable gas	R10	Flammable
H225	Highly flammable liquid and vapour	R11	Highly flammable
H226	Flammable liquid and vapour	R12	Extremely flammable
H301	Toxic if swallowed	R20	Harmful by inhalation
H311	Toxic in contact with skin	R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
H315	Causes skin irritation		
H317	May cause an allergic skin reaction	R36	Irritating to eyes
H318	Causes serious eye damage	R37	Irritating to respiratory system
H319	Causes serious eye irritation	R38	Irritating to skin
H331	Toxic if inhaled	R40	Limited evidence of a carcinogenic effect
H332	Harmful if inhaled	R41	Risk of serious damage to eyes
H335	May cause respiratory irritation	R43	May cause sensitisation by skin contact
H340	May cause genetic defects	R45	May cause cancer
H350	May cause cancer	R46	May cause inheritable genetic damage
H351	Suspected of causing cancer	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
H400	Very toxic to aquatic life		
H411	Toxic to aquatic life with long lasting effects	R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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.