

Information sheet pursuant to art. 32 of REACH Regulation

SECTION 1. Substance/mixture and company/firm identification

1.1. Product identifier

Code: XBIOABS0X
Name: **ABS 3D FC by ELIX**

1.2. Relevant use of substance or mixture and non-recommended uses

Description/Use: **Filament for 3D printers**

Base material: **ABS**

1.3. Details of safety data sheet provider

Business Name: Ciceri De Mondel s.r.l. Single partnership company

Address: Via Galvani 13,

District and country: 20080 Ozzero (MI), Italy

Tel 02 94969697-Fax 029421720

E-mail of person

responsible for safety data sheet: INFO@FILOALFA3D.COM

1.4. Emergency telephone number

For urgent information contact: **Tel: +39 0294969697**

SECTION 2. Hazard identification.

2.1. Substance or mixture classification.

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards: No specific dangers known, if the regulations/notes for storage and handling are considered.

Danger of burns while handling the hot product.

2.2. Labelling.

Product does not require hazard label in accordance with Regulation (EC) 1272/2008 (CLP) and subsequent amendments and supplements.

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.

3.2. Mixtures.

Chemical nature

Copolymer: Acrilico- styrene-butadiene,

ABS 3D FC by ELIX**3.2. Mixtures.**

Product does not contain such quantities of substances classified as hazardous to health or the environment pursuant to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and supplements) to be declared in this section

SECTION 4. First aid measures.**4.1. Description of first aid measures.**

Product is not classified as hazardous in accordance with the provisions set out in reg. (EC) 1272/2008 (CLP) and subsequent amendments and supplements and therefore does not require specific first aid measures to be identified. However, the following measures are included as a precautionary measure:

EYES: remove any contact lenses. Wash with water for at least 10 minutes, opening the lids well. Consult a doctor if the problem persists, or if you experience irritation.

SKIN: take off contaminated clothing. Wash the affected area with water. Seek medical attention if the problem persists.

INHALATION: take the individual into the open air. Call a doctor immediately if they are having difficulty in breathing.

INGESTION: Seek medical attention immediately. Induce vomiting only on the advice of the doctor. Do not give anything by mouth if the person is unconscious and unless authorized by the doctor.

4.2. Main symptoms and effects, both acute and delayed.

For symptoms and effects caused by the substances it contains, see Chapter 11.

4.3. Indication of possible need to seek immediate medical attention and special treatment.

Information not available.

SECTION 5. Fire-fighting measures.**5.1. Fire-extinguishing agents.****SUITABLE FIRE EXTINGUISHING AGENTS**

Traditional agents are used such as: carbon dioxide, foam, powder and water spray.

UNSUITABLE FIRE EXTINGUISHING AGENTS

None in particular.

5.2. Special hazards resulting from substance or mixture.

At temperatures of > 300 °C can be emitted: carbon monoxide, hydrogen cyanide; hydrocyanic acid Under special fire conditions traces of other toxic substances are possible. Formation of further decomposition and oxidation products depends upon the fire conditions.

5.3. Recommendations for fire-fighters.**GENERAL INFORMATION**

Cool down containers with water to prevent product from decomposing and avoid substances potentially hazardous to human health developing. Always wear full fire protection equipment. Collect water used to extinguish fire that must not be drained into sewers. Dispose of contaminated water used to extinguish fire and waste in accordance with the regulations in force.

EQUIPMENT

Normal fire-fighting clothing, such as flame resistant (EN469) open-circuit compressed air breathing equipment (EN 137), flame resistant gloves (EN 659) and firefighter boots (HO A29 or A30).

SECTION 6. Accidental release measures.**6.1. Personal precautions, protective equipment and emergency procedures.**For those not intervening directly

Alert staff responsible for managing these emergencies. Move away from the area in question if dust forms following the leakage of material.

For emergency responders

Get all staff not adequately equipped to deal with the emergency to move away from the area. Remove any source of ignition or fuel from the area where the leak occurred.

Wear suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing. Wear a protective mask if the leakage of material has resulted in the formation of dust.

Only make the affected area available to workers once it has been adequately decontaminated. Ventilate the premises involved in the incident.

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6.2. Environmental precautions.

Contain leakage and prevent leaked materials dispersing into the environment or draining into sewers. Contaminated surfaces may be slippery.

6.3. Containment and Cleaning methods and materials.

Collect all scattered product with mechanical equipment and eliminate traces of dust; recover or dispose of material according to the regulations in force. It is best to wash any surfaces contaminated with dust with water, preventing contaminated liquid draining into the sewers. Use of absorbent material (sand, diatomaceous earth, acid binder, universal binder, sawdust): normally not required.

6.4. Reference to other sections.

Refer to section 2 for any precautions mentioned, section 7 for handling regulations and section 8 for personal protective equipment.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Safety precautions: this product should be used by appropriately trained staff in accordance with the code of good practice applied to the operational situation. See section 8 for personal protective equipment.
 Containment, local and general ventilation: do not inhale any dust present, avoiding contact with the skin or eyes; contain possible spread of dust and fumes. Electrical equipment must be adequately protected in accordance with the appropriate standards. Preparation may become electrostatically charged, make sure systems are earthed correctly when transferring the product from one container to another.
 Collection and disposal of spillages: check and remove any leaked or spilt materials. Make sure areas where materials are moved and handled are perfectly clean.
 Recommended equipment and user procedures: it is best to wear protective gloves and comply with good industrial hygiene practices when handling material. Wash your hands thoroughly before accessing eating areas.

7.2. Safe storage conditions, including any incompatibilities.

Keep material stored in clearly identified containers. Protect from humidity and direct sunlight.
 Incompatible materials: avoid storing in warehouses for flammable products.

7.3. Specific end uses.

Information not available.

SECTION 8. Personal exposure/protection control.

Control parameters

Occupational exposure limit values:

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-STEL 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/m³; 200 ppm (may be absorbed through the skin)

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CAS No.	Designation	Type	Limit value
		Ireland: 8 hours	442 mg/m ³ ; 100 ppm (may be absorbed through the skin)
100-42-5	Styrene	Great Britain:	WEL-STEL 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
		Ireland: 8 hours	4.5 mg/m ³ ; 2 ppm (may be absorbed through the skin)
106-99-0	1,3-Butadiene	Europe: BOELV:	TWA 2.2 mg/m ³ ; 1 ppm
		Great Britain:	WEL-TWA 22 mg/m ³ ; 10 ppm (Carc)
		Ireland: 8 hours	2.2 mg/m ³ ; 1 ppm C1, Mut2
100-40-3	4-Vinylcyclohexene	Ireland: 8 hours	0.4 mg/m ³ ; 0.1 ppm

8.2. Exposure controls.

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

HAND PROTECTION

Not necessary, unless otherwise specified in chemical risk assessment.

SKIN PROTECTION

Not necessary, unless otherwise specified in chemical risk assessment.

EYE PROTECTION

Not necessary, unless otherwise specified in chemical risk assessment.

RESPIRATORY PROTECTION

In case of dust formation: Particulates filter P1 according to EN 143. Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A (= against vapours of organic substances) according to EN 14387. ENVIRONMENTAL EXPOSURE CONTROLS.

Production process emissions, including those from ventilation equipment should be checked to make sure they comply with environmental protection standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Physical	State Solid filament
Colour	Various
Smell	Characteristic of plastic material.
Odour threshold	Not available.
pH	Not applicable.
Melting or freezing point	(softening temperature: 95-105°C)
Initial boiling point	Not applicable.
Boiling range	Not available.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability of solids or gases	Non-flammable solid.
Lower flammability limit.	Not available.
Upper flammability.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1.04 g/cm3
Solubility	Insoluble in water.
Distribution coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	>300°C
Viscosity	Not applicable.
Explosive properties	Not applicable (no chemical groups associated with explosive properties in accordance with the provisions of accompanying document I, part 2, chap. 2.1.4.3 of Reg. (EC) 1272/2008-CLP).
Oxidizing properties	Not applicable (no requirements linked to the presence of atoms and/or chemical binding agents associated with the oxidizing properties in the molecules of components in accordance with the provisions set out in accompanying document I, part 2, 2.13.4 of Reg. (EC) 1272/2008 – CLP).

9.2. Other information.

Bulk density: 1050 kg/m3.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular dangers of reaction with other substances under normal operating conditions.

10.2. Chemical stability.

Product is stable under normal user and storage conditions.

10.3. Possibility of hazardous reactions.

Hazardous reactions should not occur under normal user and storage conditions.

10.4. Conditions to avoid.

Avoid temperatures over 300° C (572° F). Decomposition products that are a danger to human health may develop above this threshold such as toxic fumes, nitrogen oxides (NOx),

carbon monoxide and carbon dioxide.

10.5. Incompatible materials.

Oxidants. Strong bases.

10.6. Hazardous decomposition products.

Machining at high temperatures (e.g. extrusion or injection moulding) may result in compounds which are potentially harmful to health (carbon monoxide, toxic fumes).

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.
	Serious eye damage/irritation: Lack of data.
	Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.
	Skin sensitisation: Based on available data, the classification criteria are not met.
	Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.
	Carcinogenicity: Based on available data, the classification criteria are not met.
	Reproductive toxicity: Based on available data, the classification criteria are not met.
	Effects on or via lactation: Lack of data.
	Specific target organ toxicity (single exposure): Lack of data.
	Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.
	Aspiration hazard: Lack of data.
Other information:	There are no known health risks.
	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 melted product can cause severe burns.

SECTION 12. Ecological information.**12.1. Toxicity.**

Based on component classification assessments and the classification provisions of accompanying document I, part 4 of Reg. (EC) 1272/2008 and subsequent amendments and supplements, the mixture is not classified as hazardous for the environment. Therefore, this section does not contain any specific ecotoxicology data.

12.2. Persistence and degradability.

The product is essentially composed of a high polymer molecular weight, not considered ecotoxic.
The product is a non-biodegradable polymer.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. PBT and vPvB assessment results.

Information not available

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal.**13.1. Waste treatment methods.**

Reuse if possible. Leftover product is to be considered as non-hazardous special waste.

Disposal must be carried out by authorised waste management company, in accordance with national and, where appropriate, local regulations in force. Solid waste should be disposed of in authorized landfill site.

CONTAMINATED PACKAGING

Contaminated packaging must be sent for recycling or disposal in accordance with national waste management regulations.

SECTION 14. Transport information.**14.1. UN number.**

Not applicable.

14.2. UN shipping name

Not applicable.

14.3. Transport hazard class.

Not applicable.

14.4. Packing Group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Bulk shipment in accordance with accompanying document II of MARPOL 73/78 and the IBC

Code. Irrelevant Information.

SECTION 15. Regulatory information.**15.1. Safety, health and environmental regulations/legislation specific to the substance or mixture.****Seveso Category.**

None

ABS 3D FC by ELIX**Restrictions relating to the product or substances it contains in accordance with accompanying document XVII of Regulation (EC) 1907/2006.**

None

Substances in Candidate List (article 59 REACH).

None

Substances subject to authorisation (acc.doc. XIV REACH).

None

Substances subject to export notification reg. (EC) 649/2012:

None

Substances subject to Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Health Controls.

Information not available.

Product not intended for use provided for in Dir. 2004/42/CE.

15.2. Chemical safety assessment.

Chemical safety assessment was not carried out for the mixture and the substances contained therein.

SECTION 16. Other information.**LEGEND**

- ADR: European Agreement relating to transport of hazardous goods by road
- CAS NUMBER: Chemical Abstract Service number
- EC50: concentration that gives half-maximal response
- EC NUMBER: identification number in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: derived no-effect level
- EmS: Emergency Schedule
- GHS: globally harmonized system for the classification and labelling of chemicals
- IATA DGR: international air transport association regulation on the transport of dangerous goods
- IC50: concentration where the response is reduced by half
- IMDG: International Maritime Dangerous Goods Code
- IMO: International Maritime Organization
- INDEX NUMBER: identification number in acc. doc. VI of the CLP
- LC50: lethal concentration 50%
- LD50: lethal dose 50%
- OEL: occupational exposure Level
- PBT: persistent, bioaccumulating and toxic in accordance with REACH
- PEC: predictable environmental Concentration
- PEL: Predicted exposure Level
- PNEC: predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulations governing the international transport of dangerous goods by train
- TLV: threshold limit value
- TLV CEILING: concentration that should not be exceeded within the workplace at any time.
- TWA STEL: short term exposure limit
- TWA: Weighted average exposure limit
- VOC: volatile organic compound
- vPvB: very persistent and very bioaccumulating according to REACH
- WGC: water hazard class (Germany).

GENERAL BIBLIOGRAPHY:

- European Parliament (EU) Regulation 1907/2006 (REACH)
- European Parliament (EU) Regulation 1272/2008 (CLP)
- European Parliament (EU) Regulation no 790/2009 (I Atp. CLP)
- European Parliament (EU) Regulation 2015/830
- European Parliament (EU) Regulation 286/2011 (II Atp. CLP)
- European Parliament (EU) Regulation 618/2012 (III Atp. CLP)

European Parliament (EU) Regulation 487/2013 (IV Atp. CLP)
European Parliament (EU) Regulation 944/2013 (V Atp. CLP)
European Parliament (EU) Regulation 605/2014 (VI Atp. CLP)
-The Merck Index. -10th Edition
-Handling Chemical Safety
-INRS-Fiche Toxicologique (toxicological sheet)
-Patty-Industrial Hygiene and Toxicology
-N.I. Sax-Dangerous properties of Industrial Materials-7, 1989 Edition
-ECHA Agency Website

Note for users:

The information contained in this data sheet is based on the facts available to us at the date of the latest version. Users must make sure the information is appropriate and complete as regards the specific product use.

This document should not be interpreted as a guarantee of any specific property of the product.

Users must observe the rules and regulations governing health and safety in force as product use is not under our direct control. We are not liable for improper use.

Provide staff involved in the use of chemicals with appropriate training.

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