Safety Data Sheet of **Fiberlogy R ABS** according to Regulation (EC) No. 830/2015 (REACH) in the current version.

Last Update: January 12, 2022

1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME:	Fiberlogy R ABS
CHEMICAL NAME:	Acrylonitrile-Butadiene-Styrene
APPLICATION:	3D printing filament
MANUFACTURER:	Fiberlab S.A.
ADDRESS:	Brzezie 387, 32-014 Brzezie, POLAND
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2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:
Not classified as hazardous in compliance according to Regulation (EC) No 1272/2008.

2.2. LABEL ELEMENTS:
Not classified as hazardous in compliance according to Regulation (EC) No 1272/2008.

2.3. OTHER HAZARDS:
Material does not contain vPvB and/or PBT substances.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Chemical name	CAS number	EC number	Weight %
Acrylonitrile-Butadiene-Styrene	9003-56-9	-	>96 %
Additives	-	-	≤ 4%

This mixture contains no substances mentioned according to the criteria of section 3.2 of REACH Annex II.

Styrene is used as one of monomers during synthesis of ABS polymer. Styrene vapors can be released into the air and consequently be inhaled by operators and people nearby. It is necessary to ensure sufficient ventilation of printer's workspace.

Other information: This material can generate Particulates Not Otherwise Classifiable (PNOC). The Occupational Safety and Health Administration (OSHA) PEL/TWA for PNOC is 15 mg/m^3 for total dust and 5 mg/m^3 for the respirable fraction. The American Conference of Governmental Industrial Hygienists (ACGIH) TLV/TWA for PNOC is 10 mg/m^3 for inhalable particulates and 3 mg/m^3 for respirable particulates.

4. FIRST AID MEASURES

4.1. INHALATION

Move exposed person to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. Consult a physician after significant exposure.

4.2. SKIN CONTACT

Cool skin rapidly with cold water after contact with molten polymer. Do not peel polymer from the skin. Obtain medical attention.

4.3. EYE CONTACT

Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if symptoms occur.

4.4. INGESTION

Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur and show this MSDS and the correspondent TDS.

Information for medical: Treat symptoms.

5. FIRE-FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: water spray, foam, dry powder, carbon dioxide (CO_2).
Unsuitable extinguishing media: water jet.

5.2. HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

In case of combustion: dangerous decomposition products can be formed (e.g carbon monoxide, carbon dioxide, nitrogen oxides, organic decomposition products).

5.3. ADVICE FOR FIRE-FIGHTERS

Provide/wear a protective breathing apparatus. Wear suitable protective clothing. Do not use water, if fire is caused by an electrical short circuit

Further information: The degree of risk is determined by the burning substance and the fire conditions. In the case of combustion evolution of toxic gases/vapors is possible. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Sources of ignition should be kept well clear. Avoid contact with the skin and eyes. Avoid inhalation of dust and vapors. If necessary, wear dust masks and safety glasses.

6.2. ENVIRONMENTAL PRECAUTIONS

Should not be released into the environment.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Sweep/shovel up. Avoid raising dust. Ensure adequate ventilation. Dispose of absorbed material in accordance with regulations.

6.4. REFERENCE TO OTHER SECTIONS

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Processing machines must be placed in room' with good ventilation. Avoid the formation and deposition of dust. Handle in accordance with good industrial hygiene and safety practice. Users should be protected from the possibility of contact with molten material.

7.2. CONDITIONS FOR SAFE STORAGE. INCLUDING ANY INCOMPATIBILITIES

Information about fire and explosion protection: Make use of general rules of fire prevention.

In case of formation of dust: Take measures to prevent electrostatic charging. Avoid all sources of ignition: heat, sparks. open flame.

Storage: Well closed/packed, cool and dry. Optimal storage temperature 15-25°C. Protect against moisture and heat. Contamination with other substances must be avoided. Storage together with hazardous substances must be avoided.

7.3. SPECIFIC END USES

For the relevant identified uses listed in section 1 the advice mentioned in this section is to be observed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

The product doesn't contain any relevant quantities of materials with occupational exposure limits.

8.2. EXPOSURE CONTROLS

Respiratory protection: Breathing protection if dusts are formed. Particle filter (Type P1).
Hand protection: Use additional heat protection gloves when handling hot molten masses (EN 407).
Eye protection: Safety glasses with side-shields (frame goggles) (p. g. EN 166).
Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron.
General safety and hygiene measures: Avoid contact of molten material with skin. Avoid inhalation of dusts/mists/vapors. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice. Hands and/or face should be washed before breaks and at the end of the shift. Do not eat, drink or smoke at work. Consult the company Industrial Hygienist for recommendations on exposure testing and personal protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

State of aggregation:	solid
Shape:	round filament
Odor:	medium-slight
pH:	no data available
Apparent density:	1.04 g/cm^3
Melting/freezing point:	no data available
Boiling point:	no data available
Flammability:	no data available
Explosiveness:	no data available
Vapour pressure	no data available
Vapour density	no data available
Solubility in water(20°C):	insoluble
Autoignition temperature:	466°C
Decomposition temperature:	>300°C

9.2. OTHER INFORMATION

None.

10. STABILITY AND REACTIVITY

10.1. REACTIVITY

The product is stable if stored and handled as prescribed/indicated.

10.2. CHEMICAL STABILITY

The product is stable if stored and handled as prescribed/indicated.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

The product is stable if stored and handled as prescribed/indicated.

10.4. CONDITIONS TO AVOID

Avoid all sources of ignition: heat, sparks, open flame. Protect from moisture, direct sunlight and/or heat. Avoid dust formation.

10.5. INCOMPATIBLE MATERIALS

Strong oxidizing and reducing agents, strong acids and bases.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

At prolonged and/or strong thermal stressing above the decomposition temperature dangerous decomposition products can be formed (e.g carbon monoxide, carbon dioxide, nitrogen oxides, organic decomposition products).

11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

There are known neither short- nor long-term toxicological effects.

Acute toxicity: (not to be expected)

Irritation: Styrene may cause respiratory irritation

Sensitization: Not tested (not to be expected)

Repeated dose toxicity: Based on available data, the classification criteria are not met.

Carcinogenic effect: IARC has classified styrene as a Group 2A, probably carcinogenic to humans.

Mutagenicity: In vitro tests showed mutagenic effects which were not observed with in vivo test.

Reproductive toxicity: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1. TOXICITY

No data available.

12.2. PERSISTENCE AND DEGRADABILITY

No data available.

12.3. BIOACCUMULATIVE POTENTIAL

No data available.

12.4. MOBILITY IN SOIL

No data available.

12.5. RESULTS OF PBT AND vPvB ASSESSMENT

No data available.

12.6. OTHER ADVERSE EFFECTS

There are known no harmful effects.

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Preferred way of disposal is recycling. If compliant with local regulation, product can be landfilled or incinerated

14. TRANSPORT INFORMATION

Not classified as a dangerous good under transport regulations (ADR, RID, ADN, IMDG, ICAO/IATA).

15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS,'LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

Regulation of the European Parliament and Council Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP).

16. OTHER INFORMATION

The information is provided as a way of a guide to the use of our product and is correct to the best of our knowledge. However, neither Fiberlab S.A. nor its subsidiaries can offer any guarantee as to its accuracy or exhaustiveness. All chemicals may present unforeseen risks and should be used with caution. We cannot guarantee that the risks referred to above are the only risks present. The final choice of the application of a product is thus the sole responsibility of the user.