MATERIAL SAFETY DATA SHEET
extrudr FLEX

1. PRODUCT IDENTIFICATION

1.1 PRODUCT IDENTIFIER

TRADE NAME
Extrudr FLEX hard
Extrudr FLEX medium
Extrudr FLEX semisoft

1.2 MANUFACTURER

ADRESS
FD3D GmbH/Extrudr
Höchsterstraße 81
A-6972 Fußach

EMAIL
info@extrudr.eu

1.3 USE OF PRODUCT

Industrial thermoplast, suitable for 3D printing filament

2. HAZARD IDENTIFICATION

CLASSIFICATION
No need for classification according to GHS criteria for this product (according to Regulation (EC) No. 1272/2008 [CPL]).

LABEL ELEMENTS
According to Regulation (EC) No. 1272/2008 (CLP) this product does not require a hazard warning label in accordance with GHS criteria.

SPECIAL ADVICE ON HAZARDS
Danger of burns in contact with hot polymer. Hazardous vapours in case of burning.

3. COMPOSITION

CHEMICAL CHARACTERISTICS
This product does not contain any substance which can be dangerous for the health or the environment, with exposure limits in the working place. It does not contain any persistent, bioaccumulative or toxic substance nor very persistent or very bioaccumulative.

ADDITIONAL INFORMATION
No harmful ingredients

4. FIRST-AID MEASURES

ON SKIN CONTACT	Wash off with water and soap. If molten polymer contacts the skin, cool the skin rapidly with water. Get medical attention if necessary.
AFTER INHALATION	If during its application or in case of fire processing vapours or decomposition products are inhaled, remove person to fresh air. If irritation develops or persists, obtain medical attention.
ON INGESTION	No adverse effects anticipated.
ON EYES CONTACT	Rinse eyes with plenty of water, mechanical effects only.

5. FIRE-FIGHTING MEASURES

SUITABLE FIRE EXTINGUISHING MEDIA	Small Fire: Use dry chemical, CO2, water spray or regular foam. Large fire: Use water spray, water fog or regular foam. Do not use straight streams.
COMBUSTION PRODUCTS	Under fire conditions, polymer decomposes generating smoke and unidentified toxic and irritating compounds.
FIRE FIGHTING INSTRUCTIONS	Fire fighters should wear positive pressure self-contained breathing apparatus and should be equipped with protective clothing. Keep people away and isolate fire area.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	In case of spillage, material on the floor may cause slipping and falls.
ENVIRONMENTAL PRECAUTIONS	Prevent product from going into sewers or any water flow. In case of spill sweep up material and place in containers for re-use or disposal.

7. HANDLING AND STORAGE

Avoid processing material above recommended thermal processing temperatures. Good general ventilation should be sufficient for most conditions. Consider the use of local exhaust ventilation at processing emission points. Avoid breathing thermal processing fumes and vapours. Mechanical handling equipment can cause formation of dust. Avoid breathing dust. Use proper grounding techniques when handling this product to avoid electrostatic charges. Pellets on the floor may be slippery and cause falls.

8. PERSONAL PROTECTION

RESPIRATORY PROTECTION	For most conditions, no respiratory protection should be needed. When processing at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.
EYE PROTECTION	Use safety glasses if there is a potential risk for exposure to particles. Use safety glasses if vapour exposure causes eye discomfort.
SKIN PROTECTION	Wear gloves for handling hot material during processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM	Filament
COLOR	colored
MELTING RANGE	195-220°C
OXIDISING PROPERTIES	not self igniting / flammable
DENSITY	1.15-1.20 g/cm³

10. STABILITY AND REACTIVITY

STABILITY	The product is stable at room temperature.
CONDITIONS TO BE AVOIDED	Temperature above 240 °C.
SUBSTANCES TO BE AVOIDED	Volatiles from melt processing are expected to be water vapour, carbon dioxide and other decomposition products.
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal breakdown products may include a complex mixture of compounds, including but not limited to CO, CO2, hydrogen cyanide, oxides of nitrogen, hydrocarbons, isocyanates, water vapour smoke.

11. TOXICOLOGICAL INFORMATION

INHALATION	At room temperature, exposure to dust and vapours is unlikely. High processing temperatures may generate vapours which may cause irritation and sensitisation.
INGESTION	No adverse effects anticipated
EYES CONTACT	The product in solid or dust form may cause irritation due to mechanical action. Elevated temperatures may generate vapours sufficient to cause eye irritation.
SKIN CONTACT	Essentially non-irritating to skin at room temperature. At high temperature vapours may cause sensitisation. No toxicity studies have been conducted.

12. ECOLOGICAL INFORMATION

Not expected adverse effects from this product as furnished. No ecotoxicological information is available. Material is expected to have low aquatic toxicity because of its insolubility in water.

13. DISPOSAL CONSIDERATIONS

The unused product is not considered a hazardous waste. Do not dump into any sewers, on the ground or into any body of water. Any disposal practice must be in compliance with all local laws and regulations.

14. TRANSPORT INFORMATION

TRANSPORT REGULATIONS	Not classified as hazardous under transport regulations ADR, ADNR, RID, ICAO/IATA, IMDG/GGVSee.

15. REGULATORY INFORMATION

EU REGULATIONS	This product does not need to be labelled according to EC regulations.
EU H PHRASES	not applicable.
EU P PHARSES	not applicable.
EINECS STATUS	All starting raw materials of this product are listed on EINECS.
TSCA STATUS	All ingredients are on the TSCA inventory.

16. OTHER INFORMATION

Disclaimer of responsibility

The information provided in this document is generated for the purpose of distributing health, safety and environmental data. It is not a specification sheet nor should any displayed data be construed as a specification.