

SAFETY DATA SHEET



1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

- 1.1. Identification of the substance or preparation:** Add North Flex Bio TPU 95A printing filament; all colors. The information in this SDS is applicable only to the Flex Bio TPU 95A filament material, not the spool itself
- 1.2. Use of the substance or preparation:** FDM/FFF 3D printing
- 1.3. Company identification:** Add North 3D AB
Ulricehamnsvägen 11
51462 Ölsremma
SWEDEN

Tel: +46734003878
E-mail: info@addnorth.com
- 1.4 Emergency telephone:** Add North 3D AB: +46709109787

2. HAZARDS IDENTIFICATION

- 2.1. Classification** The material is not hazardous according to EC 1272/2008 and GHS
- 2.2. Label elements**
- | | |
|--------------------------|--|
| Health hazards: | Not hazardous |
| Environmental hazards: | Nor hazardous |
| Hazard symbol: | None |
| Signal Word: | None |
| Hazard Statement: | None |
| Precautionary statement: | None |
| PBT & vPvP substances: | Material does not contain PBT & vPvB substance |

3. COMPOSITION AND INFORMATION ON INGREDIENTS**3.1. Description**

The material is a mixture of chemical substances in a solid polymer matrix

3.2. Ingredients

Substance name	CAS number	Concentration	Classification	H-phrases
TPU	Proprietary	100%	None	None

3.3. Additional information

The material does not contain substances fulfilling the criteria of hazard classification

4. FIRST AID MEASURES**4.1. Skin contact**

If burned by contact with molten material, cool down with water for at least 10 minutes. In case of severe burns, do not remove molten material from skin and consult a physician.

4.2. Eye contact

Not likely due to physical state. Grinding or pelletizing of filament may lead to dust particles which can cause eye irritation. Wash with plenty of water and get medical attention if symptoms persist.

4.3. Inhalation

Not likely due to physical state, get medical attention.

4.4. Ingestion

Not likely due to physical state. Material is not expected to be absorbed by gastrointestinal – no first aid measures necessary.

5. FIRE FIGHTING MEASURES**5.1. Extinguishing media**

Water mist, carbon dioxide, foam, dry powder

5.2. Extinguishing media not to be used for safety reasons

High pressure water jet

- | | |
|--|---|
| 5.3. Special hazards arising from the mixture | Thermal decomposition and burning may release oxides of carbon and acetaldehyde |
| 5.4. Protective equipment for fire fighters | Use full protective clothing for chemicals and a self-contained breathing apparatus |

6. ACCIDENTAL RELEASE MEASURES

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|--|--|
| 6.1. Personal precautions | No measures required |
| 6.2. Environmental precautions | Avoid contact with sewers, soil & waterways. Contact authorities if environmental pollution has occurred. |
| 6.3. Cleanup, containment and disposal of spill | Sweep up dust or particles or pieces of filament by scoop or vacuum. Dispose of material in suitable container according to local regulations, or via RE-ADD if applicable |
| 6.4. Reference to other sections | See section 8 and 13 |

7. HANDLING AND STORAGE

- | | |
|---|---|
| 7.1. Precautions for safe handling | Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke at the workplace. Avoid dust formation by cutting or grinding. During printing, ensure good ventilation and local exhaust. Beware electrostatic charges |
| 7.2. Conditions for safe storage | To ensure technical integrity of the product store in the original container/box and keep at temperatures below 50°C and in a dry place. Protect from moisture, product is hygroscopic |
| 7.3. Specific use | Under anticipated conditions of use, no further measures are required. No available exposure scenarios. |

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure limits	Material contains no substances with occupational exposure limit values
Biological limit values	Not established
Recommended monitoring procedures	No information available
Derived No Effect Level	No information available

8.2. Exposure controls

Appropriate Engineering Controls	Keep at temperatures below 260°C. Ensure adequate ventilation in confined areas
Individual protection measures	
Eye protection	Not required (for FDM printing)
Hand protection	Not required (for FDM printing)
Skin protection	Not required (for FDM printing)
Respiratory protection	Not required (for FDM printing)
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product
Environmental exposure controls	Do not allow product to enter drains, water courses or soil

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Density	<1.1 g/cm ³
Odour	Slight

9.2. Important health, safety and environmental information

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Boiling point	N/A
Auto flammability	N/A
Bulk density	N/A
Melting point	N/A
pH-value	N/A
Viscosity	N/A
Flashpoint	Non-volatile burning solid
Solubility in water	Insoluble
Vapour pressure	N/A

10. STABILITY AND REACTIVITY

10.1. Reactivity	Not reactive under normal handling conditions
10.2. Chemical stability	Stable for handling under normal handling conditions
10.3. Possibility of hazardous reactions	No hazardous reactions with other chemicals known, under normal handling conditions
10.4. Conditions to avoid	Do not grind, pelletize or mill the material. Avoid temperatures above 260°C
10.5. Incompatible materials	Avoid water which can cause degradation of material. Material can react with strong oxidizers
10.6. Hazardous decomposition products	Hazardous decomposition products may form under fire conditions: carbon dioxide, acetaldehyde

11. TOXICOLOGICAL INFORMATION

LD 50 (Rat oral)	Not tested (not to be expected)
Skin irritation	Not tested (not to be expected)
Eye irritation	Not tested (not to be expected)
Skin sensitisation	Not tested (not to be expected)
Respiratory sensitisation	Not tested (not to be expected)
CMR effects	None of the ingredients is listed as CMR substance

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General remarks

No harmful or toxic effects have been reported to date. Information listed in this section is transferred from safety data from the ingredients of this product.

12. ECOLOGICAL INFORMATION

12.1. Aquatic toxicity	No information available
12.2. Persistence and degradability	Minimal degradation
12.3. Bioaccumulative potential	No information available, unlikely
12.4. Mobility in soil	No information available
12.5. Results of PBT and vPvB assessment	Product does not contain PBT or vPvB substances
12.6. Other adverse effects	No adverse effects known to date
12.7. Additional ecotoxicological information	The material is non soluble in water and solid. Therefore, under environmental conditions, no detrimental effects on plants, animals and micro-organisms are to be expected

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods	Dispose of in accordance with local regulations, can be recycled conventionally or within RE-ADD (if applicable)
13.2. Additional information	N/A
13.3. Packaging	Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

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14.1. RID / ADR	Not listed / free
14.2. UN-NR	Not listed / free
14.3. ICAO / IATA-DGR	Not listed / free
14.4. GGVSEE / IMDG-CODE	Not listed / free

15. REGULATORY INFORMATION

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

Restrictions of use	None
Other regulation	No information available
15.2. Chemical safety assessment	A safety assessment is not required

16. OTHER INFORMATION

Relevant H-phrase:	None
Changes compared to previous version:	N/A
Abbreviations:	REACH: Registration, Evaluation, Authorisation and restriction of chemical substances EC: European Community STOT: Specific Target Organ Toxicity PBT: Persistent, Bioaccumulating, Toxic vPvB: very Persistent, very Bioaccumulating ADR: Accord européen relative au transport international des marchandises Dangereuses per Route ADN: Accord européen relative au transport international des marchandises Dangereuses per voies de Navigation intérieures RID: Regulations for the international Transport of dangerous goods by rail IMDG: International maritime dangerous goods code ICAO: International civil aviation organization

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This safety datasheet complies with the requirements of EC 1907/2006 and regulation EC 2015/830. Label element according to regulation EC 1272/2008.

Disclaimer

The information provided in the safety datasheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information only relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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