



Safety Data Sheet
According to EU Directive 1907/2006

BCN3D FILAMENTS PET-G Safety Data Sheet

1. Identification of the substance/preparation and of the company:

1.1. Trade name:

BCN3D FILAMENTS PET-G

1.2. Use of the product:

Filament for FFF/FDM technology based 3D printing

1.3. Company:

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2. Hazards identification:

2.1. Classification of the substance or mixture:

- 1,4-Benzenedicarboxylic acid, polymer with 1,4-cyclohexanedimethanol and 1,2-ethanediol (CAS No. 1038843-64-9) is not classified according to Regulation (EC) 1272/2008 and Directive 67/548/EEC.

2.2. Label elements:

- None

2.3. Other hazards:

- Danger of burns in contact with hot polymer and hazardous vapors in case of burning.

3. Composition/information on ingredients:

3.1. Chemical characteristics:

- 1,4-Benzenedicarboxylic acid, polymer

3.2. CAS no:

- 25038-91-9

3.2. Additional information:

- No harmful ingredients.

4. First-aid measures:

4.1. First-aid measures description:

On skin contact:

- In case of contact with molten polymer immediately cool the skin with cold water. Medical aid may be required to remove adhering material and for treatment of burns.

After inhalation:

- After inhalation of decomposition gases or dust remove patient to fresh air. Contact a doctor in case of discomfort.

On ingestion:

- No effects known. Rinse mouth with water and drink more water. Contact a doctor in case of discomfort.

On eyes contact:

- Rinse open eyes thoroughly with water.

5. Firefighting measures:

5.1. Extinguishing media:

- Suitable extinguishing media:
- Water spray, Sand, Carbon dioxide (CO₂).
- Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture:

During incomplete combustion release of carbon monoxide, carbon dioxide.

5.3. Advice for fire fighters:

Fire fighting measures:

- Evacuate non-essential personnel Move containers from fire area if you can do it without risk. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters:

- Wear self-contained breathing apparatus and protective suit.

5.4. Remark:

- Accumulations of dust can be inflammable.

6. Accidental release measures:

6.1. Personal precautions, protective equipment and emergency procedures:

- Evacuate personnel to safe areas. Do not touch or walk through spilled material. Avoid dust formation. Avoid contact with skin, eyes and clothing. Do not breathe dust. Use personal protective equipment. Ensure adequate ventilation. Risk of slipping

6.2. Environmental precautions:

- Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up:

- Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water.

6.4. Reference to other sections

- Refer to section (8).

7. Handling and storage:

7.1. Handling:

- Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe dust. Ensure adequate ventilation. Wear personal protective equipment. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities:

- Requirements to be met by storerooms and receptacles:



Keep in a dry place



Protect from
direct sunlight



Store between
10-40 degrees

- Store in accordance with local regulations. Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture / Water.

8. Exposure controls/personal protection:

8.1. Control parameters:

Components with occupational exposure limits:

- Contains no substances with occupational exposure limit values.

Biological Limit Values:

- Not established.

PNEC:

- The obligation to register acc. to the REACH Regulation (EC) No 1907/2006 does not apply to polymers.

DNEL:

- The obligation to register acc. to the REACH Regulation (EC) No 1907/2006 does not apply to polymers.

8.2. Exposure controls:

Appropriate Engineering Controls:

- Ensure adequate ventilation, especially in confined areas. Keep at temperatures below 230 °C / 446 °F.

Individual protection measures, such as personal protective equipment:

Eye Protection:

- Tightly fitting safety goggles (EN166).

Hand Protection:

- Protective gloves (EN374): Butyl rubber. Glove thickness: 0.5 mm. Break through time: >8 hours.

Skin and body protection:

- It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.

Respiratory Protection:

- Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment when necessary.

Hygiene Measures:

- Handle in accordance with good industrial hygiene and safety practice. Workers must be trained in the proper use and handling of this product as required under applicable regulations.

Environmental exposure controls:

- The product should not be allowed to enter drains, water courses or the soil.

9. Physical and chemical properties:

9.1. Information on basic physical and chemical properties:

- Appearance: Solid Filament
- Odour: Odourless
- Colour: depending on product grade
- Odour threshold: Slight odor
- pH: Not applicable
- Melting point: Not applicable
- Initial boiling point and boiling range: Not applicable
- Flash point: Not applicable
- Evaporation rate: Not applicable
- Flammability (solid, gas): Not available
- Upper/lower flammability or explosive limits: Not applicable
- Vapour pressure: Negligible (20°C)
- Vapour density: Not applicable
- Relative density: Ca. 1.27 g/cm³
- Solubility(ies): Negligible
- Partition coefficient (n-octanol/water): Not available
- Auto-ignition temperature: 454°C
- Decomposition temperature: >250°C
- Viscosity: Not applicable
- Explosive properties: Not explosive
- Oxidizing properties: Not oxidizing

10. Stability and reactivity:

10.1. Reactivity:

- No information available.

10.2. Chemical stability:

- Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions:

- No hazardous reactions observed under normal handling and storage conditions.

10.4. Conditions to avoid:

- Temperatures above 230 °C / 446 °F.

10.5. Incompatible materials:

- Oxidizing agents, Strong bases.

10.6. Hazardous decomposition products:

- Burning produces obnoxious and toxic fumes Aldehydes, Carbon monoxide (CO), carbon dioxide (CO₂)

11. Toxicological information:

11.1. Information on toxicological effects:

Acute toxicity:

- Ingestion: No known effect.
- Skin Contact : No known effect.
- Inhalation : No known effect. Product dust may be irritating to eyes, skin and respiratory system. Resin particles, like other inert materials, are mechanically irritating to eyes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Molten material will produce thermal burns

Germ Cell Mutagenicity:

- Not known to cause heritable genetic damage.

Carcinogenicity:

- Contains no ingredient listed as a carcinogen.

Reproductive Toxicity:

- Not known to cause birth defects or have a deleterious effect on a developing fetus. Not known to adversely affect reproductive functions and organs.

STOT-single exposure:

- No known effect.

STOT-repeated exposure:

- No known effect.

Aspiration Hazard:

- No known effect.

12. Ecological information:

12.1. Toxicity:

- Contains no substances known to be hazardous for the environment.

12.2. Persistence and degradability:

- Inherently biodegradable under industrial composting conditions.

12.3. Bio accumulative potential:

- No information available.

12.4. Mobility in soil:

No information available.

12.5. Results of PBT and vPvB assessment:

- This substance is not considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.5. Other adverse effects:

- No information available.

13. Disposal considerations:

13.1. Waste treatment methods:

- Waste from residues / unused products: Generation of waste should be minimized, check possibility for recycling. Waste product can be incinerated or dumped together with domestic waste in compliance with local authority requirements.
- Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information:

Product has been classified as being non-dangerous substance according to transport regulations ADR, RID, IMDG, IATA/ICAO

14.1. UN number:

Not applicable

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):

Not applicable

14.4. Packing Group:

Not applicable

14.5. Environmental hazards:

No additional data is available

14.6. Special precautions for user:

No data available

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not evaluated

15. Regulatory information:

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

Dangerous as defined by the EU CLP 2008:
This product is not classified and labelled as dangerous according to EC directives.

15.2. Chemical Safety Assessment:

No information available.

16. Other information:

Information is referenced from other manufacturers.

Abbreviations and acronyms:

- REACH: Registration, Evaluation, Authorisation and Restriction of Chemical substances
- EC: European Commission
- STOT: Specific Target Organ Toxicity
- PBT: Persistent, Bioaccumulative, Toxic
- vPvB: very Persistent and very Bioaccumulating
- ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
- ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies
de Navigation intérieures (European Agreement concerning the International Carriage of Dangerous
Goods by Inland Waterways)
- RID: Règlement concernant le transport international ferroviaire des marchandises
dangereuses
(Regulations for the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Dangerous Goods Code
- ICAO: International Civil Aviation Organization
- This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and
Regulation (EC) No. 2015/830. Label element according to Regulation (EC) No 1272/2008.

The information provided in this Safety Data Sheet 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 relates only 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.