

## SAFETY DATA SHEET

### Section 1. Identification of the substance / mixture and of the company/undertaking

<b>1.1 Product identifier</b>	Filament 3D flexible 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,4-butanediol, dimethyl 1,4-benzenedicarboxylate and .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl), Butylene / Poly(alkylene ether) phthalate
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>1) Relevant identified uses</b>	Plastics
<b>2) Used advised against</b>	Use for recommended use only
<b>1.3 Details of the supplier of the safety data sheet</b>	
<b>1) Manufacturer/supplier</b>	Capifilpsi
<b>2) Telephone number</b>	+33 (0) 476 079 376
<b>3) E-mail address of competent person responsible for the SDS</b>	<a href="http://www.capifilpsi.com">www.capifilpsi.com</a>
<b>1.4 Emergency telephone number</b>	+33 (0) 476 079 376

### Section 2. Hazards identification

<b>2.1 Classification of the substance or mixture</b>	1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,4-butanediol, dimethyl 1,4-benzenedicarboxylate and .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl) is not classified according to Regulation (EC) 1272/2008 and Directive 67/548/EEC.
<b>2.2 Label elements</b>	
○ Hazard pictogram	Not applicable
○ Signal word	Not applicable
○ Hazard statements (H and EUH)	Not applicable
○ Precautionary statements (P)	Not applicable
<b>2.3. Other hazards</b>	

### Section 3. Composition/information on ingredients

Chemical name	Concentration (%)
Butylene / Poly(alkylene ether) phthalate	85 ~ 95
Calcium carbonate	5 ~ 15
Additive(s)	< 1%

### Section 4. First aid measures

#### 4.1 Description of first aid measures

##### 4.1.1 Inhalation

- Specific medical treatment is urgent.
- Move victim to fresh air.
- Give artificial respiration if victim is not breathing.

- Administer oxygen if breathing is difficult.

#### 4.1.2 Eye contact

- Get medical attention if eye symptoms occurred.
- In case of contact with molten substance, immediately flush eyes with water for at least 15 minutes. Get medical attention immediately.

#### 4.1.3 Skin contact

- Remove contaminated clothing and shoes.
- Get medical attention if skin symptoms occurred.
- If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
- Wash contaminated clothing and shoes before reuse.

#### 4.1.4 Ingestion

- No specific intervention is indicated as the compound is not likely to be hazardous by ingestion.
- Consult a physician if necessary.
- Get medical attention if swallowed amount of substance

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#### 4.2 Most information symptoms and affects, both acute and delay

<b>Acute effects</b>	Not classified.
<b>Delayed effects</b>	Not classified.

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#### 4.3 Indication of any immediate medical attention and special treatment needed

- Call emergency medical service. Get medical advice/attention if you needed.
  - Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
  - If burned by contact with molten material, cool quickly as possible with water, and then go to see a physician for treatment of burn.
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### Section 5. Firefighting measures

#### 5.1 Extinguishing media

<b>5.1.1 Suitable extinguishing media</b>	CO <sub>2</sub> , water, sand, Foam, Dry Chemical.
<b>5.1.2 Unsuitable extinguishing media</b>	Not available.

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#### 5.2 Special hazard arising from the substance or mixture

- Thermal decomposition products: Not available
  - Hazardous combustion products: CO<sub>2</sub>, CO, Acrolein, Tetrahydrofuran, Acetaldehyde
  - Unusual fire and explosion hazards: Combustible Hazardous gases / vapors produced in fire are carbon monoxide.
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#### 5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).
  - Structural fire fighters' protective clothing will only provide limited protection.
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### Section 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

- Stop leak if you can do it without risk.
- Isolate exposed area.
- Keep unauthorized personnel away.
- Use certificated protective equipment.
- Ventilate the leaked area.
- Pellets on floor may be slippery and cause falls

<b>6.2 Environmental precautions</b>	<ul style="list-style-type: none"> <li>- Spilled pellets may cause soil and air pollution.</li> <li>- Disposal should be carried in compliance with federal, state and local regulations regarding health, air and water pollution.</li> </ul>
<b>6.3 Methods and material for containment and cleaning up</b>	<ul style="list-style-type: none"> <li>- Recover large spills for disposal.</li> <li>- Carefully sweep up small spills and transfer to suitable container for disposal.</li> <li>- Avoid creation of dusty atmosphere.</li> <li>- Do not touch or walk through spilled material.</li> <li>- Prevent entry into waterways, sewers, basements or confined areas.</li> </ul>
<b>6.4 Reference to other sections</b>	- See also sections 8 and 13 of this Safety Data Sheet.

## Section 7. Handling and storage

<b>7.1 Precautions for safety handling</b>	<ul style="list-style-type: none"> <li>- Avoid contact with molten material.</li> <li>- Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures.</li> </ul>
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	<ul style="list-style-type: none"> <li>- Keep container closed.</li> <li>- Do not expose to temperature exceeding 40°C for a prolonged time.</li> <li>- Protect from direct sunlight and all heat sources in order to avoid sintering.</li> <li>- Store container in a well dry/cool place.</li> <li>- Keep away from waterways and sewers.</li> <li>- Keep away from any source of ignition.</li> </ul>
<b>7.3 Specific and uses</b>	Not available.

## Section 8. Exposure controls / Personal protection

### 8.1 Control parameters:

#### Occupational Exposure limits

Calcium Carbonate	OSHA PEL: TWA 15 mg/m <sup>3</sup> (total) TWA 5 mg/m <sup>3</sup> (resp) NIOSH REL: TWA 10 mg/m <sup>3</sup> (total) TWA 5 mg/m <sup>3</sup> (resp)
Others	Not available

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls :

- Provide local exhaust ventilation system or other engineering controls to keep the airborne below their respective threshold limit value.
- Check legal suitability of exposure level.

#### 8.2.2 Individual protection measures, such as personal protective equipment :

##### Respiratory protection :

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

##### Eye/face protection :

- An eye wash unit and safety shower station should be available nearby work place.
- Wear safety glasses to protect eyes from scattering toxic substance.

**Skin protection**

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

**8.2.3 Environmental exposure controls**

Not available.

**Section 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

(a) Appearance	Off-white to light yellow solid (pellets)
(b) Odour	Odorless
(c) Odour threshold	Not available
(d) pH	Not applicable.
(e) Melting point/freezing point	150 ~ 160°C / -
(f) Initial boiling point and boiling range	Not applicable
(g) Flash point	384°C(ASTM D1929)
(h) Evaporation rate	Not available.
(i) Flammability (Solid, gas)	Not available.
(j) Upper/lower flammability or explosive limits	Not available.
(k) Vapour pressure	Negligible (20 °C)
(l) Vapour density	Not applicable
(m) Relative density	1.22 g/ml (25 °C)
(n) Solubility	Insoluble in water
(o) Partition coefficient: n-octanol/water	Not available
(p) Auto-ignition temperature	Not available.
(q) Decomposition temperature	Not available
(r) Viscosity	Not available.
(s) Explosive properties	Not available.
(t) Oxidizing properties	Not available.

**9.2 Other information** Not available.

**Section 10. Stability and reactivity**

<b>10.1 Reactivity</b>	- Some of these materials may burn, but none ignite readily.
<b>10.2 Chemical stability</b>	Not available.
<b>10.3 Possibility of hazardous reaction</b>	<ul style="list-style-type: none"> <li>- Containers may explode when heated.</li> <li>- Fire may produce irritating and/or toxic gases.</li> <li>- Some liquids produce vapours that may cause dizziness or suffocation.</li> <li>- Inhalation of material may be harmful.</li> </ul>
<b>10.4 Conditions to avoid</b>	<ul style="list-style-type: none"> <li>- Avoid contact with incompatible materials.</li> <li>- Avoid release to the environment.</li> </ul>
<b>10.5 Incompatible materials</b>	- Combustibles.
<b>10.6 Hazardous decomposition products</b>	- Irritating and/or toxic gases.

## Section 11. Toxicological information

### 11.1 Information on toxicological information

(a) acute toxicity	Not available
(b) skin corrosion/irritation	Molten material will produce thermal burns
(c) serious eye damage/irritation	Molten material will produce thermal burns
(d) respiratory or skin sensitization	Not available
(e) germ cell mutagenicity	Not available.
(f) carcinogenicity	IARC, NTP, OSHA, ACGIH, EU Regulation 1272/2008, US EPA: not listed
(g) reproductive toxicity	Not available.
(h) STOT-single exposure	Not available.
(i) STOT-repeated exposure	Not available.
(j) aspiration hazard	Not available.

## Section 12. Ecological information

12.1 Toxicity	Not available.
12.2 Persistence and degradability	Not available.
12.3 Bio accumulative potential	No bioconcentration is expected because of high molecular weight (MW> 10,000)
12.4 Mobility in soil	Not available.
12.5 Results of PBT and vPvB assessment	Not available.
12.6 Other adverse effects	Not available.
12.7 Additional information	Not available.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

#### Waste from residues

- Waste must be disposed of in accordance with federal, state and local environmental control regulation.

#### Container

- Consider the require attentions in accordance with waste treatment management regulation.

## Section 14. Transport information

### 14.1 UN Number

Not regulated as a hazardous material in transportation by DOT/IMO/IATA.

### 14.2 UN proper shipping name

Not applicable.

### 14.3 Transport hazard class

Chemicals, N.O.S. (Not-regulated, Not-classified)

### 14.4 Packing group

Not applicable

### 14.5 Environmental hazards

ADR/RID, DOT, IMDG, IATA : No.

#### 14.6 Special precautions for user

**in case of fire** : Not applicable.

**in case of leakage** : Not applicable.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC code : Not available.

### Section 15. Regulatory information

#### 15.1 Safety, health and environment regulation /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.

**FOREIGN INVENTORY STATUS:**

**EU (EINECS/ELINCS/NLPL):** It is not classified as a hazardous substance under EU regulations. The polymer is exempted from listing on EINECS.

**TSCA (US Toxic Substances Control Act):** All components of PETG haute Température are listed on the TSCA inventory. Any impurities present in this product are exempt from listing. The polymer is exempted from listing on TSCA.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** All components of PETG haute Température are listed on the DSL. Any impurities present in this product are exempt from listing. The polymer is exempted from listing on DSL.

**ENCS (Japanese Existing and New Chemical Substances):** It is listed on the Japanese Existing and New Chemical Substances

**ECL (Korean Toxic Substances Control Act):** All components of PETG haute Température are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

**IECSC (Inventory of Existing Chemical Substances in China):** All components of PETG haute Température are listed on the Inventory of Existing Chemical Substances in China. The polymer is exempted from listing on IECSC.

#### 15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

### Section 16. Other information

#### 16.1 Indication of changes

**Version**

Version: 1.1/EN

**Revision date**

Date Updated : 20th. July. 2018

#### 16.2 Abbreviations and acronyms

**ACGIH** = American Conference of Government Industrial Hygienists.

**CLP** = Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008.

**CAS No.** = Chemical Abstracts Service number.

**EC Number** = EINECS and ELINCS Number (see also EINECS and ELINCS).

**EU** = European Union.

**IARC** = International Agency for Research on Cancer.

**ISHL** = Industrial Safety & Health Law.

**NIOSH** = National Institute for Occupational Safety & Health.

**NTP** = National Toxicology Program.

**OSHA** = European Agency for Safety and Health at work.

**PBT** = Persistent, Bioaccumulative and Toxic substance.

**PEL** = Permissible Exposure Limit

**PNEC(s)** = Predicted No Effect Concentration(s).

**REACH** = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 453/2010.

**REL** = Recommended Exposure Limit

**STP** = Sewage Treatment Plant.

**SVHC** = Substances of Very High Concern.

**TWA** = Time Weighted Average

**vPvB** = very Persistent and very Bioaccumulative.

**UN** = United Nations.

**MARPOL** = International Convention for the Prevention of Pollution from Ships (IMO).

**IBC** = Intermediate Bulk Container.

**CERCLA** = Comprehensive Environmental Response, Compensation & Liability Act (US).

**EPCRA** = Emergency Planning and Community Right-to-Know Act (US).

**EINECS** = European Inventory of Existing Commercial chemical Substances.

**ELINCS** = European List of Notified Chemical Substances.

#### **16.3 Key literature reference and sources for data**

<b>16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 (CLP)</b>	Classification according to Regulation (EC) 1272/2008 Classification procedure
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<b>16.5 Relevant R-phrases and/or H-statements (number and full text)</b>	Not Available
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<b>16.6 Training advice</b>	Do not handle until all safety precautions have been read and understood
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#### **16.7 Further information :**

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1272/2008; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

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