

# 3D Printing Filament PET MATERIAL SAFETY DATA SHEET

Sharebot Srl encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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

**Product Identifiers** 

Product Name: Sharebot PET

Relevant identified uses of the substance or mixture and uses advised against Identified uses: 3D printing filament. Material for 3D printing FDM applications.

# **Details of the supplier of the Safety Data Sheet**

Sharebot Srl Via Montello 18 23895 Nibionno (LC) Italy

031692132 info@sharebot.it

# **Section 2. Hazards Identification**

#### Classification of the substance or mixture

REGULATION (EC No 1272/2008): Not a hazardous substance or mixture.

# Label elements

REGULATION (EC) No 1272/2008): Not a hazardous substance or mixture.



## **Other Hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# Section 3. Composition/information on ingredients

#### **Components**

| Chemical name           | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|-------------------------|--|----------------|-----------------------|
| copolyester             | proprietary                                  |                | > 85                  |
| additive(s)/colorant(s) | proprietary                                  |                | < 20                  |

For explanation of abbreviations see section 16.

#### Section 4. First-aid measures

## **Description of first aid measures**

#### If inhaled:

Move to fresh air. Treat symptomatically. If symptoms persist, call a physician.

#### In case of skin contact:

Wash off with soap and water.

If symptoms persist, call a physician.

Cool in rapidly with cold water after contact with molten material.

Do not peel solidified product off the skin.

Burns must be treated by a physician.

## In case of eye contact:

Rinse immediately with plenty of water and seek medical advice.

#### If swallowed:

Seek medical advice.



## Most important symptoms and effects, both acute and delayed

#### **Risks:**

The molten product can cause serious burns.

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

**Treatment**: Treat symptomatically

# **Section 5. Fire fighting measures**

# Suitable extinguishing media:

Water spray Dry chemical Carbon dioxide (CO2)

## Unsuitable extinguishing media:

Do not use a solid water stream as it may scatter and spread fire

#### Specific hazards during fire- fighting:

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

## **Hazardous combustion products**

No hazardous combustion products are known

## **Special protective equipment for firefighters:**

Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

#### **Further information:**

Minimize dust generation and accumulation

## Section 6. Accidental release measures



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

## **Personal precautions**

Wear appropriate personal protective equipment.

Local authorities should be advised if significant spillages cannot be contained.

#### **Environmental precautions**

Avoid release to the environment.

#### Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

#### Section 7. Handling and Storage

# **Precautions forsafe handling:**

Use only in area provided with appropriate exhaust ventilation.

Minimize dust generation and accumulation

# Advice on protection against fire and explosion:

Minimize dust generation and accumulation

#### **Hygiene measures:**

Handle in accordance with good industrial hygiene and safety practice.

#### Requirements for storage areas and containers:

Keep tightly closed.

## **Section 8. Exposure Controls / Personal Protection**

#### **Control parameters**

None established.

## **Exposure Controls Engineering measures**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

# Personal protective equipment

#### **Eye protection:**

Safety glasses



Wear a face shield when working with molten material.

#### **Hand protection Remarks:**

Wear suitable gloves. When handling hot material, use heat resistant gloves

# Skin and body protection

Wear suitable protective clothing.

# **Respiratory protection**

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Wear respiratory protection when its use is identified for certain contributing scenario.

# Section 9. Physical and Chemical Properties

# Information on basic physical and chemical properties

#### **Appearance**

| TD1 • 1 4 4                           | 1.1               |  |
|---------------------------------------|-------------------|--|
| Physical state:                       | solid             |  |
| Colour:                               | various           |  |
| Odor:                                 | odorless          |  |
| Odor threshold:                       | Not determined    |  |
| pH:                                   | Not determined    |  |
| Melting point:                        | Not determined    |  |
| Boiling point:                        | Not determined    |  |
| Flash point:                          | Not determined    |  |
| Evaporation rate                      | Not determined    |  |
| Upper explosion                       | Not determined    |  |
| limit/Lower                           |                   |  |
| flammability limit                    |                   |  |
| Lower explosion                       | Not determined    |  |
| limit/Lower                           |                   |  |
| flammability limit                    |                   |  |
| Vapour pressure                       | Not determined    |  |
| Relative vapour density               | Not determined    |  |
| Relative density                      | No data available |  |
| Solubility(ies) Water solubility      | Negligible        |  |
| Partition coefficient: n-             | No data available |  |
| octanol/water                         |                   |  |
| Auto-ignition temperature             | Not determined    |  |
| Decomposition temperature             | Not determined    |  |
| Viscosity, dynamic                    | Not determined    |  |
| Viscosity, kinematic                  | Not determined    |  |
| Explosive properties                  | No data available |  |
| Oxidizing properties                  | No data available |  |
| · · · · · · · · · · · · · · · · · · · |                   |  |



# Section 10. Stability and Reactivity

**Reactivity:** None reasonably foreseeable.

**Chemical stability:** Stable under normal conditions

Possibility of hazardous reactions: Stable

**Conditions to Avoid:** Minimize dust generation and accumulation.

**Incompatible Materials**: Strong oxidizing agents

Hazardous decomposition products: Carbon monoxide Carbon dioxide

# **Section 11. Toxicological Information**

# Toxicological effects

Oral toxicity: na **Inhalation toxicity:** na Dermal toxicity: na Skin irritation: na Eye damage: na Respirator sensitization: na Carcinogenicity: na Reproductive toxicity: na STOT - single exposure: na

STOT - repeated exposure: na

Aspiration toxicity: na



# **Section 12. Ecological Information**

#### Toxicity

No data available.

## Persistence and degradability

No data available.

## **Bioaccumulative potential**

No data available.

#### Mobility in soil

No data available.

## Results of PBT and vPvB assessment\_\_\_\_

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

# **Section 13. Disposal Considerations**

**Product:** Dispose of in accordance with local regulations.

# **Section 14. Transport Information**

#### **UN** number

Not regulated as a dangerous good

#### UN proper shipping name

Not regulated as a dangerous good

# **Transport hazard class(es)**

Not regulated as a dangerous good

# Packing group

Not regulated as a dangerous good

#### **Environmental hazards**

Not regulated as a dangerous good

# Special precautions for user

Not applicable



#### Transport in bulk according to Annex II of Marpol and the ICB Code

Not applicable for product as supplied.

# **Section 15. Regulatory Information**

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): Not applicable

Regulation (EC) No 1005/2009 on substances that de-plete the ozone layer: Not applicable

Regulation (EC) No 850/2004 on persistent organic pol-lutants: Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances: Not applicable

The components of this product are reported in the following inventories:

| CH INV | On the inventory, or in compliance with the inventory |  |
|--------|---|--|
| DSL    | On the inventory, or in compliance with the inventory |  |
| AICS   | On the inventory, or in compliance with the inventory |  |
| NZIoC  | On the inventory, or in compliance with the inventory |  |
| ENCS   | On the inventory, or in compliance with the inventory |  |
| ISHL   | Not listed  |  |
| KECI   | On the inventory, or in compliance with the inventory |  |
| PICCS  | On the inventory, or in compliance with the inventory |  |
| IECSC  | Not listed  |  |
| TCSI   | Not in compliance with the inventory                  |  |
| TSCA   | On the inventory, or in compliance with the inventory |  |

# Chemical safety assessment

None

# **Section 16. Other Information**

#### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN

- Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Cana- da); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration



associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC -International Agency for Research on Cancer; IATA - In- ternational Air Transport Association; IBC -International Code for the Construction and Equip- ment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentra- tion; ICAO - International Civil A viation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Mari- time Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisa- tion for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n. o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL -No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Develop- ment; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumu- lative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substanc- es; (Q)SAR -(Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, E val ua- tion, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT -Self-Accelerating Decomposition Temperature; SDS

- Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Sub- stances Control Act (United States); UN - United Nations; vP vB - Very Persistent and Very Bioac-cumulative

#### **Further information**

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.