SAKATA 3D FILAMENTS® PET-G V0

Revision date: 14/09/2022, revision number: 1.0

In accordance with Regulation (CE) 1907/2006 (REACH), Annex II, modified by Regulation (UE) 2015/830

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE

Product name: SAKATA 3D FILAMENTS® PET-G V0

REACH registration number: None

Type of product: Thermoplastic material

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Use of the substance/mixture: FDM 3D printing

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

POLIMERSIA GLOBAL S. L.
Polígono Industrial ASEGRA
C/ Granada, 20
18210 Peligros (Granada)
Phone: +34 958 99 38 24
E-mail: info@sakata3d.com

1.4 EMERGENCY TELEPHONE NUMBER

Emergency telephone number: 112 (Spain)

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Definition of the product: Mixture

The product is NOT classified as hazardous according EC 1272/2008

2.2 LABEL ELEMENTS

Hazard symbol: None

Signal Word: None

Hazard Statement: None

Precautionary statement: None

2.3 OTHER HAZARDS

Risk of slipping if the product is spilled on the ground. Fumes or vapors released during the process must not be inhaled. Molten material can cause burns. Dust and particles generated during product handling may cause mechanical irritation to the eyes, skin, and mucous membranes. Grinding of molded articles may accentuate these phenomena; it is therefore necessary to avoid inhaling any possible dust in the environment.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 SUBSTANCE

N/A

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3.2 MIXTURE

SUBSTANCE NAME	CAS NUMER	% WEIGHT
PETG Copolyester and Organic phosphorus derivatives	Confidential	> 95 %
Color masterbatch	Confidential	< 5%

1) Hazardous substances contained in the material
None
2) SVHC substances intentionally added in concentrations above 0.1% by weight:
None

SECTION 4. FIRST AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURES

Eye contact: Wash with plenty of water while keeping the eyelids open. If eye irritation persists, consult a physician.
Inhalation: Move the victim to fresh air and consult a physician.
Skin contact: Cool immediately with water and consult a physician.
Ingestion: Rinse mouth immediately with water. Move the victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting without medical advice. If the person is conscious, drink small amounts of water as a precaution. Call a physician immediately if symptoms persist.
Protection of first aiders: No action shall be taken involving any personal risk or without adequate training.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE AND DELAYED

Mechanical irritation due to product particles.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Move the injured person to a well-ventilated area and consult a physician.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 ESTINGUISHING MEDIA

Suitable extinguishing media: Foam, water, carbon dioxide (CO_2), regular dry chemical are preferred if available.
Unsuitable extinguishing media: High pressure water jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Decomposition products released during a fire:
Hydrocyanic acid (hydrogen cyanide), carbon monoxide, carbon dioxide, acetaldehyde.
Under certain fire conditions, traces of other toxic substances must not be excluded. The formation of other decomposition and oxidation products depends on the fire conditions.

5.3 RECOMMENDATIONS FOR FIRE-FIGHTERS

Use self-contained breathing apparatus (SCBA) and fire-resistant clothing.
Additional information: None.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. Remove all sources of ignition. Sweep up to prevent slipping hazard.

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment. Comply with all applicable regulations on spill and release reporting. Prevent entry into waterways, sewers, basements, or confined areas.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Collect spilled material in appropriate container for reuse or disposal. Dispose in accordance with all applicable regulations.

6.4 REFERENCES TO OTHER SECTIONS

Refer to Section 1 for more information on contacts in case of emergency.
Refer to Section 8 for more information on personal protective equipment (PPE).
Refer to Section 13 for additional information on waste management.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

During handling, the formation of significant quantities of particles with a grain size smaller than 500 micrometers must be avoided; therefore, the provisions of the NFPA 654 (National Fire Protection Association) standard or equivalent must be followed. Adopt the measures indicated below to prevent the formation of electrostatic discharges (earthing of equipment, etc.) in accordance with the guidelines of the CLC/TR 50404 Guide (Electrostatics - Code of practice for the avoidance of hazards due to static electricity) or other equivalent guides.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in a covered and dry place, away from atmospheric agents.

7.3 SPECIFIC END USES

Recommendations: No information available.
Specific solutions for the industrial sector: No information available.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

The use of local ventilation and good general extraction is recommended. Adequate air extraction equipment must be available in areas where dust is generated.
Occupational exposure limit values (ACGIH)
TLV: 10mg/m3 TLV-TWA Inhalable dust
3mg/m3 TLV-TWA Respirable dust*
DEFINITIONS
TLV-TWA (Threshold Limit Value - Time Weighted Average): Permissible average concentration for 8 hours (workday) and 40 hours per week to which workers may be exposed without adverse effects.
Derived No-Effect Levels (DNEL)
No data available.
Predicted No-Effect Concentration (PNEC)
No data available.

8.2 EXPOSURE CONTROLS

Engineering controls: Provide local exhaust ventilation system. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

Individual protection measures:

Hygiene measures: Handle respecting good industrial hygiene and safety practices.

Eye/face protection: None during normal use. Protect with safety glasses with side-shields against molten solid.

Skin protection:

Hand protection: Protect against molten solid. In the molten form: Wear protective gloves.

Body protection: Impervious clothing.

Respiratory protection: No respirator is required under normal conditions of use. If respirable dusts are generated, respiratory protection may be needed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid
Colour: Different colours
Odour: Characteristic
Water solubility: Insoluble at 20ºC
Solubility in other solvents: Not available
Density: 1,20 - 1,41 g/cm^3
Freezing point: Not available
Boiling point: Not available
Melting point: Not available
Decomposition temperature: >250 °C
Autoignition temperature: Not available
Flash point: Not available
Flammability: Not flammable (Dir 67/548/CEE)

9.2 OTHER INFORMATION

Explosive properties: Not explosive in the form as sold.

SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY

None under normal use conditions.

10.2 CHEMICAL STABILITY

Stable under normal conditions of use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

None under normal use conditions.

10.4 CONDITIONS TO AVOID

Before processing, it is recommended to dry the product according to the technical instructions. Caution! If the material is handled at processing temperatures higher than the highest suggested value (mentioned

in the technical literature), some decomposition may occur; this becomes more significant with longer residence times in the fusor. If printing is interrupted, do not allow the material to remain in the fusor: it may decompose and/or create a dangerous excess of pressure in the fusor. Avoid contamination with other materials that could create hazardous gases and fumes during the processing phase. During purging, do not allow fumes from the molten material to disperse into the work environment. For additional information, refer to the recommendations in the technical literature.

10.5 MATERIALS TO AVOID

No information available.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

No information available.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Specific tests to determine the toxicity of the product have not been performed. The evaluation is based on information from similar products, ingredients, professional experience, and technical literature.

Acute toxicity: No data available.

Skin corrosion/irritation: Dust generated during material handling may cause mechanical irritation to the skin.

Serious eye damage/irritation: Dust generated during material handling may cause mechanical irritation to the eyes.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Specific Target Organ Toxicity (STOT) – single exposure: No data available.

Specific Target Organ Toxicity (STOT) – repeated exposure: No data available.

Aspiration hazard: Dust generated during material handling may cause mechanical irritation to the upper respiratory tract.

SECTION 12. ECOLOFICAL INFORMATION

12.1 ECOTOXICITY

No data available.

12.2 PERSISTENCE AND DEGRADABILITY

Potentially non-biodegradable. It is expected to be persistent.

12.3 BIOACCUMULATION

It is not expected to cause bioaccumulation.

12.4 MOBILITY IN SOIL

Based on the morphology and composition of the product, significant mobility in soil is unlikely.

12.5 RESULTS OF PBT Y mPmB

The material does not contain PBT (persistent, bioaccumulative, toxic) or vPvB (very persistent, very bioaccumulative) substances.

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12.6 OTHER ADVERSE EFFECTS

No other environmental effects (ozone, global warming) have been observed.

Water purification plant: the material can be removed from water by mechanical separation. In accordance with EC and national regulations, water that has been in contact with the material or molded/printed articles may require special treatment before being discharged into the drain. If necessary, treat the exhaust gas from the air coming from the smoke extraction plant used during material handling, in accordance with EC and national regulations.

SECTION 13. DISPOSAL CONSIDERATIONS

The information in this section contains general advice and guidelines.

13.1 DISPOSAL METHODS

Product

Disposal method: Dispose of contents / container in accordance with local, regional, national, and international regulations. Avoid release to the environment. Incineration should be done in accordance with prevailing municipal, state, and federal laws and standards from local environmental agencies.

Hazardous residues: The product is NOT classified as hazardous according EC 1272/2008.

Packaging

Disposal method: Packaging should be recycled after using.

SECTION 14. TRANSPORT INFORMATION

ADR/RID: Not applicable.
ICAO/IATA: Not applicable.
OMI/IMDG: Not applicable.
DOT: Not applicable.

SECTION 15. REGULATORY INFORMATION

15.1 NORMS / SECURITY, HEALTH AND ENVIRONMENTAL LAW SPECIFIC TO THE MIXTURE SUBSTANCE

Legislative References
Classification and Labeling:
Regulation (EC) No. 1272/2008 and its amendments.
Occupational Health and Safety:
"ATEX" - Dir. 2017/164/EU, Dir. 1999/92/EC.
Atmospheric Emissions:
Dir. 2008/50/EC - Dir. 2010/75/EU – and their amendments.
Water Protection:
Dir. 91/271/EEC, 2000/60/EC, 2008/105/EC, 2009/90/EC, 2013/39/EU.
Waste Disposal:
Dir. 2015/1127/EC, 94/62/EC, 2001/118/EC.
PPE (Personal Protective Equipment):
Reg. 2016/425/EU - Dir. 93/68/EEC - Dir. 93/95/EEC - Dir. 96/58/EC.
The information contained in this data sheet has been prepared in accordance with the following standards: Reg. (EC) No. 1907/2006 (REACH Regulation).

15.2 CHEMICAL SAFETY EVALUATIONS

No required.

SECTION 16. OTHER INFORMATION

The information contained in this safety data sheet is based on our knowledge and experience. Neither the provider nor any of its subsidiaries assumes any responsibility for the accuracy or completeness of the information contained herein. Final determination as to the suitability of the printed product is the sole responsibility of the user. We do not recommend the use of this product for food contact or medical applications.