

Product name: Real filament PLA Satin

Date of issue: 23-7-2018

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

1.1 Trade name: Real filament PLA Satin

1.2 **Use of the product:** 3Dprinter Filament

1.3 Supplier:

ReprapWorld B.V. Wagenmaker 6a 2631 RL Nootdorp, The Netherlands Phone: +31 (0)85 0091531

2. Hazards identification

2.1 Classification of the substance or mixture

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

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

3.2 **Mixtures**

The components are not hazardous or are below required disclosure limits.

4. First aid measures

4.1 On skin contact:

If burned by contact with hot material, cool molten material adhering to skin as guickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Do not peel polymer from the skin.

4.2 After inhalation:

Not likely, due to the form of the product. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

4.3 On ingestion:

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

4.4 On eyes contact:

Not likely, due to the form of the product. If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately.



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5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray, Dry powder, Carbon dioxide (CO2).

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and

5.2 Special hazards arising from the substance or mixture

During incomplete combustion release of carbon monoxide, carbon dioxide and hydrocarbons.

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 materials 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

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



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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

Butyl rubber. Glove thickness: 0.5 mm. Protective gloves (EN374):

Break through time: >8 hours.

Skin and body protection Long sleeved clothing.

Respiratory Protection In case of insufficient ventilation wear suitable respiratory

equipment. Recommended Filter Type P2 / FFP2.

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



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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance Solid Filament

Odour Sweet

Colour depending on product grade

Odour threshold Not available pH Not applicable

Melting point 150-170 °C / 302-446 °F

Initial boiling point and boiling range Not applicable
Flash point Not applicable
Evaporation rate Not applicable
Flammability (solid, gas) flammable

Upper/lower flammability or

explosive limits

Vapour pressure

Vapour density

Relative density

Not applicable

Not applicable

Ca. 1.2-1.3 g/cm3

Solubility(ies)

Partition coefficient (n-octanol/water)

Auto-ignition temperature

Decomposition temperature

Viscosity

Explosive properties

Oxidizing properties

Insoluble

Not available

Not available

Not applicable

Not explosive

Not oxidizing

10. Stability

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)



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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

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

Decomposes partly in contact with water. Hydrolysis product (S-lactic acid): Readily biodegradable

12.3 Bioaccumulative 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).

12.6 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.



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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

Environmental hazards 14.5

No additional data is avalailable

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 Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

Restrictions on use: None

Other Regulations: No information available

Chemical Safety Assessment 15.2

No information available.



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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.