



Safety Data Sheet

According to EU Directive 1907/2006, as amended

Product name: Real filament PA

Date of issue: 23-7-2018

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

- 1.1 Trade name:** Real filament PA
- 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

Classification according to Regulation (EC) N° 1272/2008 (CLP):
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification as per Directive 67/548/EC or Directive 1999/45/EC
Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

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

2.3 Other hazards

Dust can occur through abrasion if the granulate is subjected to mechanical loading.
Risk of skin burns caused by hot melt. A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

3. Composition/information on ingredients

3.1 Composition of the substance

Polyamide, microcrystalline. With colorants

4. First aid measures

4.1 Description of first aid measures

Pay attention to self-protection.
Move out of dangerous area.
Keep warm, position comfortably, and cover well.
Do not leave affected persons unattended.

If inhaled:	In case of symptoms of irritation caused by vapours in thermal processing, move subject to fresh air and seek medical advice if necessary. Treat symptomatically.
In case of skin contact:	Cool melted product on skin with plenty of water. Do not remove solidified product. In case of burns by molten product medical treatment is necessary.
In case of eye contact:	If easy to do, remove contact lens, if worn. In case of pellets or powder, flush with plenty of water for at least 15 minutes. Seek medical advice if any dust particles still remain. In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes. Seek medical advice if necessary



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4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No experiences of acute or chronic damages in humans are known.
Hazards: Risk of skin burns caused by hot melt..

4.3 Indication of any immediate medical attention and special treatment needed

Continue with first aid measures.
Depending on the pathology and clinical findings, patient monitoring and symptomatic treatment are necessary.

5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water, foam, dry chemical powder, Carbon dioxide fire extinguishers

Unsuitable extinguishing media : Full water Jet

5.2 Special hazards arising from the substance or mixture

Hazardous Combustion Products:
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: carbon monoxide, carbon dioxide, nitric oxides, organic products of decomposition. Under certain fire conditions, traces of other toxic products may occur.

5.3 Advice for fire fighters

Protective equipment: Self contained breathing apparatus (SCBA).

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep out of irrigation ditches, sewers, and water supplies. Spills should be collected to prevent contamination of waterways. Ensure adequate ventilation and avoid dust inhalation.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Sweep up and contain spilled material if possible. Risk of slipping. Collect in suitable and properly labelled containers. Avoid dust formation.

7. Handling and storage

7.1 Handling

Avoid contact with molten polymer. Avoid generation of dust and electrostatic charge. In case of thermal processing, provide for extraction of the vapours or adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Protect against moisture. Store dry and keep packaging closed when not in use. Avoid sources of ignition, avoid dust formation. Stable under recommended storage conditions.



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8. Exposure controls/personal protection

8.1 Control parameters exposure limit for dust

CAS-No. -		
Control parameters	10 mg/m ³	Time Weighted Average (TWA):(EH40 (UK))
type of exposure: Inhalable dust		
Control parameters	4 mg/m ³	Time Weighted Average (TWA):(EH40 (UK))
type of exposure Respirable dust.		

8.2 Exposure controls Engineering measures

In case of thermal processing, provide for extraction of the vapours or adequate ventilation.
In case of dust being formed, provide for adequate extraction.

Personal protection:

- Eye protection: Wear safety glasses for general purpose. Wear chemical goggles for cleaning moulding machines

- Respiratory protection:

The wearing of a dust mask is sufficient in the event of dust occurring, e.g. during conveyance of the granulate or filter cleaning operations. Do not inhale vapours from hot product. Should vapours inadvertently manage to permeate into the surrounding air during thermal processing, then gas masks fitted with filters designed to combat organic vapours (e.g. A 2) or breathing apparatus with an independent air supply are to be worn. Note time limit for wearing respiratory protective equipment.

- Hand protection:

The wearing of protective gloves is not required if the granulate in question is handled at room temperature. Any areas of skin covered with dust must be washed immediately with soap and water as the powder draws out natural moisture from the skin. Use barrier cream regularly. Protective heat-insulating gloves are to be used during thermal processing.

- Hygiene measures:

Do not wear contaminated clothing.

Wash hands before breaks and at the end of workday.

Smoking, eating and drinking should be prohibited in the application area.



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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Solid Filament
Odour	Odourless
Colour	Neutral, depending on product grade
Odour threshold	Not determined
pH	Not applicable
Melting point / freezing point	258°C
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	Not applicable
Vapour density	Not applicable
Relative density	Ca. 1.02 (20°C)
Bulk density	Not available
Solubility(ies)	Practically insoluble
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	The substance or mixture is not classified as pyrophoric
Decomposition temperature	>300°C
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

9.2. Other information

Formation of flammable gases	The substance or mixture does not emit flammable gases in contact with water.
Ignition temperature	not determined
peroxides	The substance or mixture is not classified as organic peroxide.
Metal corrosion	Not corrosive to metals.
Vapour density	Not applicable

Other information

The range of values given complies with the variation range of the product group.
The specific physical chemical data can be read in the product information.

10. Stability

10.1 Reactivity:

Stable under normal handling and storage conditions

10.2 Chemical stability:

Stable under normal handling and storage conditions

10.3 Possibility of hazardous reactions:

No hazardous reactions observed under normal handling and storage conditions
Do not bring hot smelt into contact with water at risk of steam formation.

10.4 Conditions to avoid

While printing, keep away from sparks and open flame. Exposure to elevated temperatures can cause product to decompose.



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10.5 Incompatible materials:

None known

10.6 Hazardous decomposition products

Decomposition products on thermal decomposition
carbon monoxide, carbon dioxide
Nitrogen oxides (NO_x)
organic products of decomposition

11. Toxicological information

11.1 Information on toxicological effects

Toxicological effects:

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

12. Ecological information

12.1 Toxicity

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

12.2 Persistence and degradability

This water-insoluble polymeric solid is difficult to decompose..

12.3 Bioaccumulative potential

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains. The properties of this product which are characteristics posing a threat to the environment have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

13. Disposal considerations

13.1 Waste treatment methods

With respect to local regulations, e.g. dispose of to suitable waste incineration plant. No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority



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14. Transport information

Product has been classified as being non-dangerous substance according to transport regulations.

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

15. Regulatory information

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

USA (TSCA)	listed/registered
Australia (AICS)	listed/registered
Japan (MITI)	listed/registered
Korea (KECI)	listed/registered
Philippines (PICCS)	listed/registered
China	listed/registered
New Zealand	listed/registered
Taiwan (ECS)	listed/registered

Information on additional inventories on request.

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not executed.

16. Other information

Information is referenced from other manufacturers.

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.