

Safety data sheet | rPA12 filament

According to Regulation (EC) No 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2020/878

Version 1.0
Date of issue 28/09/2026
Revision date 28/09/2026 (first issue)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name rPA12 filament (recycled polyamide 12), 1.75 mm
Product type Thermoplastic polymer filament (article form)
Other means of identification Recycled PA12 filament produced from HP 3D HR PA12 (MJF) powder

1.2 Relevant identified uses and uses advised against

Identified use Feedstock for fused filament fabrication (FFF/FDM) 3D printing
Uses advised against None known. Not tested or certified for food contact or medical applications.

1.3 Details of the supplier of the safety data sheet

Manufacturer 3devo B.V.
Atoomweg 478, 3542 AB Utrecht, The Netherlands
Telephone +31 (0)85 876 9016
E-mail info@3devo.com
Website www.3devo.com

1.4 Emergency telephone number

Emergency +31 (0)85 876 9016 (office hours, CET)
NL National Poisons Information Centre (NVIC): +31 (0)88 755 8000 –
for medical professionals only

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not classified as hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

Hazard pictograms None
Signal word None
Hazard statements None
Precautionary statements None required

2.3 Other hazards

Molten polymer can cause severe thermal burns. Vapours and fumes released during thermal processing (printing) may irritate the eyes and respiratory tract. Dust may be generated if the filament is ground or machined; fine polyamide dust can form combustible dust concentrations in air. The product does not meet the criteria for PBT or vPvB, and contains no substances identified as having endocrine-disrupting properties at ≥ 0.1 %.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Component	CAS No.	Content (w/w)	Classification (CLP)
Polyamide 12 (recycled, from post-use HP 3D HR PA12 MJF powder)	24937-16-4	90 – 100 %	Not classified

No additives or colourants are intentionally added during filament production. The feedstock may contain minor proprietary processing additives from the original powder manufacturer, none of which are classified as hazardous at the concentrations present.

SECTION 4: First aid measures

4.1 Description of first aid measures

General	Remove the person from the source of exposure. Do not leave affected persons unattended. If symptoms persist, seek medical advice.
Inhalation	In case of irritation from fumes during printing, move to fresh air. Seek medical advice if symptoms persist.
Skin contact	Solid filament: no special measures required. Molten polymer: cool the affected area immediately with plenty of cold water. Do not attempt to remove solidified polymer from the skin. Seek immediate medical attention for burns.
Eye contact	Rinse with plenty of water for at least 15 minutes, holding the eyelids open. Remove contact lenses if easy to do. Seek medical advice if irritation persists or if molten material entered the eye.
Ingestion	Unlikely route of exposure. Rinse mouth with water. Do not induce vomiting. Seek medical advice if a large amount has been swallowed.

4.2 Most important symptoms and effects, both acute and delayed

No acute or chronic effects known under normal use. Thermal burns from contact with molten material. Fumes from overheating may cause irritation of the eyes and respiratory tract.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Thermal burns should be treated as such by a medical professional.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable	Water spray, foam, dry chemical powder, carbon dioxide (CO ₂)
Unsuitable	Full water jet (may spread burning material)

5.2 Special hazards arising from the substance or mixture

Combustion may produce carbon monoxide, carbon dioxide, nitrogen oxides (NO_x) and other organic decomposition products. Under certain fire conditions, traces of other toxic products may occur.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No special precautions for solid filament. Loose filament on the floor may present a slip or trip hazard. Avoid dust formation if filament is cut or ground.

6.2 Environmental precautions

Do not allow the product to enter drains, surface water or soil.

6.3 Methods and material for containment and cleaning up

Pick up mechanically and collect in suitable, labelled containers for recycling or disposal. Sweep or vacuum any dust using equipment suitable for combustible dust.

6.4 Reference to other sections

See Section 8 for personal protection and Section 13 for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with molten polymer and hot printer parts (nozzle, heated bed). Print in a well-ventilated area or use an enclosed printer with suitable extraction/filtration. Avoid overheating above the recommended printing

temperature. Do not eat, drink or smoke in work areas. Avoid generating dust and electrostatic charge when grinding or machining.

7.2 Conditions for safe storage, including any incompatibilities

Polyamide 12 is hygroscopic: store in the original sealed packaging with desiccant in a cool, dry place away from direct sunlight and sources of heat or ignition. Do not store above 60 °C. Keep away from strong oxidising agents.

7.3 Specific end use(s)

FFF/FDM 3D printing. See the rPA12 Technical Data Sheet for recommended processing conditions.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No substance-specific occupational exposure limits have been established. If dust is generated (e.g. grinding), the following general dust limits may be used as guidance:

Type	Limit (8 h TWA)	Source
Inhalable particles	10 mg/m ³	ACGIH TLV
Respirable particles	3 mg/m ³	ACGIH TLV

8.2 Exposure controls

Engineering controls	Provide adequate general ventilation or local exhaust when printing. Enclosed printers with activated carbon/HEPA filtration are recommended for extended use.
Eye/face protection	Safety glasses with side shields when handling hot parts or cutting filament.
Hand protection	Not required for solid filament. Wear heat-resistant gloves when handling hot components or removing molten material.
Respiratory protection	Not required under normal use with adequate ventilation. If fumes cannot be controlled, use a respirator with a combined organic-vapour/particle filter (e.g. type A2/P2).
Hygiene measures	Wash hands after handling and before breaks. Do not eat, drink or smoke in the work area.
Environmental exposure	No special measures required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid (filament, Ø 1.75 mm)
Colour	Sandy brown
Odour	Odourless to slight characteristic odour
Melting point / freezing point	184 – 187 °C (feedstock)
Boiling point	Not applicable
Flammability	Combustible solid; not classified as flammable
Lower/upper explosion limit	Not applicable (filament). Dust may form explosive mixtures with air.
Flash point	Not applicable
Auto-ignition temperature	> 400 °C (feedstock)
Decomposition temperature	> 350 °C (feedstock)
pH	Not applicable
Kinematic viscosity	Not applicable
Solubility	Insoluble in water
Partition coefficient n-octanol/water	Not applicable (polymer)
Vapour pressure	Not applicable

Density	Approx. 1.01 g/cm ³ (20 °C)
Relative vapour density	Not applicable
Particle characteristics	Not applicable (filament)

9.2 Other information

Explosive properties	Not explosive
Oxidising properties	Not oxidising

SECTION 10: Stability and reactivity

10.1 Reactivity	Not reactive under normal conditions of use and storage.
10.2 Chemical stability	Stable under recommended storage and handling conditions.
10.3 Possibility of hazardous reactions	None known under normal conditions. Do not bring molten polymer into contact with water (risk of steam formation).
10.4 Conditions to avoid	Temperatures above the recommended processing range, open flames, sparks. Prolonged exposure to moisture degrades print quality.
10.5 Incompatible materials	Strong oxidising agents, strong acids and strong bases.
10.6 Hazardous decomposition products	On thermal decomposition: carbon monoxide, carbon dioxide, nitrogen oxides (NO _x), organic decomposition products.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met. Particles may cause mechanical irritation.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met. Not listed by IARC.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT – single exposure	Based on available data, the classification criteria are not met.
STOT – repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not applicable (solid).

11.2 Information on other hazards

No endocrine-disrupting properties known. Thermal decomposition products released at high temperature may irritate the respiratory tract.

SECTION 12: Ecological information

12.1 Toxicity	Not expected to be toxic to aquatic organisms. Plastic fragments may cause physical harm to wildlife if ingested.
12.2 Persistence and degradability	Not readily biodegradable (water-insoluble polymer).
12.3 Bioaccumulative potential	Not expected to bioaccumulate.
12.4 Mobility in soil	Insoluble; low mobility expected.
12.5 Results of PBT and vPvB assessment	Does not meet the criteria for PBT or vPvB.
12.6 Endocrine disrupting properties	None known.

12.7 Other adverse effects

Do not release into the environment, drains or surface water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This product is itself made from recycled material and is recyclable. Where possible, collect clean offcuts, failed prints and empty spools separately for mechanical recycling. Otherwise dispose of by incineration with energy recovery or landfill in accordance with local and national regulations. A European Waste Catalogue (EWC) code must be assigned by the user based on the actual application; 20 01 39 (plastics) or 07 02 13 (waste plastic) may be applicable. The cardboard spool can be recycled with paper/cardboard waste.

SECTION 14: Transport information

Not classified as dangerous goods under ADR, RID, ADN, IMDG or ICAO/IATA.

14.1 UN number or ID 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	Not applicable
14.6 Special precautions for user	None
14.7 Maritime transport in bulk (IMO instruments)	Not applicable

SECTION 15: Regulatory information

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

REACH (EC) 1907/2006	Polymers are exempt from registration (Art. 2(9)). To the best of our knowledge the product contains no substances on the REACH Candidate List (SVHC) above 0.1 % w/w.
REACH Annex XVII	No restrictions applicable.
Seveso III (2012/18/EU)	Not applicable.
Inventory status (feedstock)	Ingredients listed or exempt on: US TSCA, EU (EINECS/ELINCS), Canada (DSL/NDL), Australia, Japan, Philippines, South Korea, New Zealand, China.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this product.

SECTION 16: Other information

Feedstock information	Produced by 3devo B.V. from post-use HP 3D High Reusability PA 12 powder (HP Inc. SDS V1R10Series, version 11, revision 27-Oct-2020) by direct extrusion on the 3devo FMx10. Data marked "feedstock" refer to the original powder.
Abbreviations	ACGIH: American Conference of Governmental Industrial Hygienists; CLP: Classification, Labelling and Packaging; EWC: European Waste Catalogue; FFF/FDM: fused filament fabrication/fused deposition modelling; MJF: Multi Jet Fusion; PBT: persistent, bioaccumulative, toxic; STOT: specific target organ toxicity; SVHC: substance of very high concern; TWA: time-weighted average; vPvB: very persistent, very bioaccumulative.
Revision history	Version 1.0 – first issue.

The information in this Safety Data Sheet is based on our current knowledge and on data from the feedstock manufacturer, and is given in good faith. It describes the product with regard to safety requirements only and is not a guarantee of specific properties or of suitability for a particular application. It applies only to the product specified and may not be valid when used in combination with other materials or processes. HP is a trademark of HP Inc.; this product is not an HP Original product and is not endorsed by HP Inc.