



Safety Data Sheet

According to EU Directive 1907/2006, as amended

Product name: Real filament PVA

Date of issue: 23-7-2018

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

- 1.1 Trade name:** Real filament PVA
- 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 product is not classified according to Regulation (EC) 1272/2008 and Directive 67/548/EEC.

2.2 Label elements

Not applicable.

3. Composition/information on ingredients

3.2 Mixtures

Chemical name	%	Cas No./EC No.	REACH Reg.No.	Index No.
Polyvinyl Alcohol Compound	>96	N/A		
Classification: -				
Methanol (impurity)	<1	67-56-1-200-659-6	01-2119433307-44-XXX	603-001-00-X
Classification:	Flam. Liq. 2;H225, Acute Tox. 3;H301, Acute Tox. 3;H311, Acute Tox. 3;H331, STOT SE 1;H370			

4. First aid measures

4.1 On skin contact:

- General advice: If you feel unwell, seek medical advice (show the label where possible). Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.
- If inhaled: If breathed in, move person into fresh air.
- In case of skin contact: If on skin, rinse well with water. If skin irritation persists, call a physician.
- In case of eye contact: If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed: Rinse mouth with water. Induce vomiting immediately and call a physician. If a person vomits when lying on his back, place him in the recovery position.



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4.2 After inhalation:

no data available

4.3 On ingestion:

no data available

5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water fog, Dry chemical

Unsuitable extinguishing media :

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting:

Do not use a solid water stream as it may scatter and spread fire. Exposure to decomposition products may be a hazard to health.

5.3 Advice for fire fighters

Special protective equipment for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Further information:

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation, especially in confined areas.

6.2 Environmental precautions

no data available

6.3 Methods and materials for containment and cleaning up

Use mechanical handling equipment. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly.

7. Handling and storage

7.1 Handling

Advice on safe handling:

For personal protection see section 8. Avoid creating dust. Do not breathe dust. Avoid contact with skin and eyes.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Dust explosion class:

No data available.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

store spool in the original vacuumized and sealed bag in a dry, cool and ventilated place.

Further information on storage conditions:

After opening the vacuumized bag, Protect from moisture. Keep away from oxidising agents and strongly acid or alkaline materials. Keep away from food, drink and animal feedingstuffs.

Advice on common storage:



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Storage temperature:

> 0 °C and <= 40 °C

Other data:

No decomposition if stored and applied as directed

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Type	Value	
Methanol (impurity)	67-56-1	STEL TWA: 333 mg/m ³ , 250 ppm	333 mg/m ³ 250 ppm 266 mg/m ³ 200 ppm	

8.2 Exposure controls

Engineering measures

Provide adequate ventilation.

Personal protective equipment

Respiratory protection:

In the case of dust or aerosol formation use respirator with an approved filter. Half mask with a particle filter P2 (EN 143).

Hand protection:

Rubber gloves

Eye protection:

Goggles

Skin and body protection:

Apron

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. General industrial hygiene practice. Do not breathe dust. Avoid contact with skin, eyes and clothing. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Wash contaminated clothing before re-use.

Environmental exposure controls

no data available



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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Solid Filament
Odour	Neutral
Colour	Yellow to pale yellow
Odour threshold	No information available
pH	Not applicable
Melting/freezing point	190 - 210 °C / -
Initial boiling point and boiling range	Not applicable
Flash point	>70 °C
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	UEL: No data available LEL: No data available
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	> 1 g/ml (25°C)
Solubility(ies)	Unlimited solubility
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	440 °C
Decomposition temperature	>210 °C
Viscosity	Not applicable
Explosive properties	Dust explosion risk at fine dust
Oxidizing properties	Oxidising potential: not oxidising

10. Stability

10.1 Reactivity:

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability:

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions:

None Known

10.4 Conditions to avoid

Avoid elevated temperatures for prolonged periods of time. While printing, keep away from sparks and open flame

10.5 Incompatible materials:

Materials to avoid: Oxidizing agents, Acids, Bases

10.6 Hazardous decomposition products

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.



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11. Toxicological information

11.1 Information on toxicological effects

Component: Methanol (impurity) CAS 67-56-1

Acute toxicity

Acute oral toxicity:

LD50, species Rat, test result: 1187 - 2769 mg/kg

Acute inhalation toxicity:

LC50, species Rat, test result: 128200 mg/ m³

Exposure time: 4 h

Acute dermal toxicity:

LD50, species Rat, test result: 17100mg/kg

Acute toxicity

(other routes of administration)

no data available

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation

Respiratory or skin sensitisation

Not expected to cause respiratory or skin sensitisation

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0,1% are mutagenic or genotoxic

Carcinogenicity

Not classified as to carcinogenicity to humans

Reproductive toxicity:

Based on available data, the classification criteria are not met

Teratogenicity:

no data available

STOT - single exposure

Not classified

STOT - repeated exposure

Not classified

Aspiration hazard

Not a aspiration hazard

12. Ecological information

12.1 Toxicity

The product is not classified as environmentally hazardous.

Components

Test results

Methanol (Impurity)(67-56-1)

EC50 Algae:22000 mg/l 96 hours

EC50 Daphnia magna:> 10000mg/l/48 hours

LC50 Fish: 15400 mg/l 96 hours

12.2 Persistence and degradability

No data is available on the degradability

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

Additional ecological information: If the PVA filament is dissolved in water, the effluent can be disposed of through the drain, but only if this effluent is eventually treated in a waste water treatment plant.

13. Disposal considerations

13.1 Waste treatment methods

Disposal method

Disposal: In accordance with local and national regulations. Waste codes should be assigned by the user based on the application for which the product was used..



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14. Transport information

14.1 UN number

Not regulated as a hazardous material.

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

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**

Not listed.

15.2 Chemical Safety Assessment

no data available

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.