



# BILBYCNC MATERIAL DATA SAFETY SHEET FOR PVA WATER SOLUBLE FILAMENT

Version 1.1

This Material Data Safety Sheet relates to the product known as **BilbyCNC PVA Filament**.

PVA is Poly Vinyl Alcohol plastic which is a water soluble filament. It is an experimental filament and is most suitable for the slightly more experienced printer.



## 1. Chemical Product and Manufacturer Identification

Chemical Name : Poly Vinyl Alcohol  
Physical state : Solid in transit. Liquid in use  
Odour : Similar to wood glue  
Colour : Yellow-Brown

Product use : Used in 3D printers, at an extrusion temperature of 180-195°C to produce water soluble 3D models

Name of manufacturer: BilbyCNC uses an agent company to manufacture this filament on its behalf

Use restriction: Not recommended for use outside the description above.  
If considering use for medical purposes or food container purposes, please contact us in advance about the specific usage.

Contact details : BilbyCNC [www.bilby.net](http://www.bilby.net) PH (within Australia) 1800 245 297  
(outside Australia) +64 2 4480 6450

## 2. Hazards Identification

PVA is not classified as hazardous according to the criteria of Worksafe Australia in its liquid and solid state (non heated)

It has no dangerous goods class/subsidiary Risk

Health Hazards :

Hazardous to the aquatic environment (Acute) : Not classified

Hazardous to the aquatic environment (Chronic) : Not classified

Sweep up and dispose of spilled product

A slip hazard when wet.

Do not pile up bags too high in order to avoid injury caused by falling of the product.

## 3. First-Aid Measures

**Swallowed :**

Rinse mouth thoroughly with water. Give a glass of water to drink. Seek medical advice

**Inhalation of vapours:**

Remove affected person to a well ventilated area

Seek medical advice, if victim does not recover.

**Skin contact :**

Wash off with soap and water. If irritation persists seek medical advice

Eye contact :

Gently rinse the affected eyes with clean water for at least 15 minutes. Seek medical advice if irritation persists.

Protective measures for a first aid person :

Wear protection gloves when removing melting polymer or high temperature polymer.

## 5. Fire-Fighting Measures

Extinguishing Media :

CO<sub>2</sub>, Dry chemical or water.

Fire/Explosion Hazards : Product is not combustible. However burning the product will emit toxic fumes including oxides or carbon.

Flammability : This product is water based and does not burn. It may support combustion when water has been removed.

Specific fire-fighting measures : Apply water from a safe distance. Move container from fire areas if it can be done without risk.

Keep personnel removed from and upwind of fire.

Evacuate non-essential personnel to safe area.

Protection of fire-fighters : Fire-fighters should wear proper protective equipment

Remove affected person to a well ventilated area

## 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures :

Sweep up spilled pellets on road or floor to avoid tripping.

Measures for environmental effects :

Do not wash away into shower or waterway.

Methods and materials for containment and cleaning up :

Sweep up, dry material and place in a bag and hold for waste disposal. Contain liquid spill to prevent contamination to drains / water ways, using sand, earth or other inert absorbent material. Collect and seal in clearly and properly labelled containers for disposal in accordance with local regulations. If required, wash area with water.

## 7. Handling and Storage

Handling :

**Local ventilation / Total air ventilation** : Not required

**Safety Measures/Incompatibility** :

S29-Do not empty into drains

Do not drop onto, or slide across sharp objects

Avoid rough handling or dropping

**Recommendations for Storage** :

This material is not flammable

Store in a cool place. Do not store under 0°C, or above 50°C. Avoid freezing.

Store away from sunlight in a sealed air and water tight container

Biodegrades when exposed to water, including high humidity.

**Stability and Reactivity**

Do not allow to come into contact with water

Bio-degradable (rapid degrading in water and light)

## Disposal considerations

Dispose of unused material via registered waste carriers.  
Not recyclable

## 8. Exposure Control/Personal Protection

### Engineering measures:

Ensure adequate ventilation and keep containers closed when not in use.

### Safety and Health measures :

Wash hands before breaks and at the end of work.  
Do not eat, drink or smoke at work.

## 9. Physical and Chemical Properties

Physical properties :

Appearance : solid thread/filament

Colour : yellow/brown

Odour : Slight odour

pH : 7+/-1

Phase change temperature :

Melting point : 184-195°C

Flash point : Not Available

## 10. Stability and Reactivity

Stability : This product is considered a stable material under normal and anticipated storage and handling conditions.

Possibility of hazardous reactions : This product is considered a stable material under normal and anticipated storage and handling conditions.

Dangerous condition : Oxides of carbon

Incompatible Materials : Strong oxidising agents, acids and alkalis.

## 11. Toxicological Information

There is no specific toxicity information available for this product. No adverse health effects are expected if the product is handled in accordance with this Safety Data Sheet. Symptoms that may arise if the product is mishandled are:

**Swallowed** : No adverse effect expected. Large amounts may cause nausea and vomiting

This product contains no egg, soy, dairy, wheat, gluten, seafood or peanut products, by-products or derivatives.

**Eye**: Mild irritant. May cause watering of the eyes

**Inhalation of Vapours** : May be a respiratory irritant if used in a poorly ventilated room

**Chronic Effect** : None known

## 12. Ecological Information

No specific data is available for this product. However, do not release this product or any water contaminated with this product into drains, soils or waterways. Sufficient measures should be taken to retain the water used in extinguishing any fires involving this product. Dispose of contaminant in accordance with local landfill or incineration regulations.

### **13. Disposal Consideration**

Dispose to an authorized waste collection point.

Follow the local law and regulations of waste disposal and prevention against public nuisance  
Do not cast waste (waste fluid, solid waste and washing drainage etc.) that includes this product directly into a river, or bury it underground.

Check if there is no resin left, if disposing the package after use. (paper package, flexible container etc.)

Follow the local law and regulations of waste disposal.

Do not use the package for other purposes.

### **14. Transport Information**

International guide line : n/a

Specific safety measures and conditions on transport :

Covering is necessary for shutting off sunlight and rain.

Handle gently to avoid damaging bags.

### **15. Other Information/References**

The information relates to this specific material. It may not be valid for this material, if used in combination with any other materials or in any process. It is the user's responsibility to satisfy him-selves as to the suitability and completeness of this information for his own particular use.

The information herein is given in good faith, but no warranty, express or implied, is made.

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

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