

MATERIAL SAFETY DATA SHEET

FILAFORM BED ADHESIVE SPRAY FOR 3D PRINTING



Version: 1.1

Revision Date: 25/10/2022

SECTION 1: IDENTIFICATION OF THE MIXTURE & OF THE COMPANY

1.1 Product identifier

Product Name: Filaform Adhesive Spray 100ml

Product Code: 9300010060010

1.2 Relevant identified users of the mixture and uses advised against

Bed adhesive spray for 3D printing

Uses advised against:

Uses other than what is recommended

1.3 Details of the supplier of the safety data sheet.

Company: 3D Printer Gear Pty Ltd
Address: 781 High Street, Reservoir
City: Melbourne
State: Victoria
Telephone: (+61) 1300 334 327
Email: admin@3dprintergear.com.au

1.4 Emergency Telephone Number.

Emergency Contact: In case of emergency contact **Poisons Information Centre 13 11 26**

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of substance and mixture

This material is hazardous according to health criteria of Safe Work Australia



Signal Word

Warning

Hazard Classification

Flammable Liquids - Category 3

Hazard Statement

H226 Flammable liquid and vapour

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Prevention Precautionary Statements

P102	Keep out of reach of children.
P103	Read label before use
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting and all other equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements

P101	If medical advice is needed, have product container or label at hand.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378	In case of fire: Use water fog, alcohol resistant foam or dry agents for extinction.

Storage Precautionary Statement

P403 + P235	Store in a well-ventilated place. Keep cool.
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Disposal Precautionary Statement

P501	Dispose of contents/container in accordance with local, regional, national and international regulations.
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Poison Schedule

Not applicable

Contains

Propan-2-ol

2.2 Other Hazard

In normal use conditions and in its original form, the product does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION INFORMATION

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture in accordance with GHS

Name of substance	Identification	Wt%	Classification acc to GHS	Pictograms (if applicable)
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Propan-2-ol	CAS: 67-63-0 Index: 603-117-00-0 REACH: 01-2119457558-25-XXXX	75 ≤ 95%	Eye irrit. 2: H319; Flam Liq. 2: H225; STOT SE 3: H336 -Danger	
Polyvinylpyrrolidone -vinyl acetate copolymer	CAS: 25086-89-9	0.5 ≤ 4%	Does not require a hazard label in accordance with GHS	Not Applicable
Trade secret	-	0.1 ≤ 1%	Non-hazardous	N/A

SECTION 4: FIRST AID MEASURES

4.1 First aid description

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin irritation occurs, stop using product. Wash thoroughly with soap and water. Consult doctor if needed.

Eye contact: If in eyes wash out immediately with water for at least 15 minutes under running water with eyelids held open. In all cases of eye contamination, it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice IMMEDIATELY.

4.2 Main effects and symptoms, acute and delayed

Acute and delayed effects are indicated in section 2 and 11. Refer accordingly.

4.3 Indication of any immediate medical attention and special treatment needed.

Notes to physician: Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

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Hazhem Code: •2Y

5.1 Suitable extinguishing media

Preferable to use polyvalent dust extinguishing media (ABC dust), alternatively alcohol resistant foam, dry agent (carbon dioxide, dry chemical powder).

5.2 Specific hazards

Flammable liquid and vapour. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

5.3 Fire fighting further assistance

Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Control measures for small spills

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

6.2 Control measures for large spills

If safe to do so, shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

6.3 Precautions relative to the environment

This product is not classified as dangerous to the environment. Maintain the product far from drainage, superficial and underground waters.

6.4 Additional Information

Dangerous goods - initial emergency response guide number: 14

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

7.2 Safety storage conditions, including possible incompatibilities

Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks. This material is classified as a Class 3 Flammable Liquid as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and must be stored in accordance with the relevant regulations.

T^a minimal: 5° C

T^a maximum: 35°C

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

		TWA		STEL		NOTICES
		ppm	mg/m3	ppm	mg/m3	
Propan-2-ol						
CAS: 67-63-0	VLA-ED	200	500	-	-	-
CE: 200-661-7	VLA-EC	400	1000	-	-	-

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15-minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

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Biological Limit Values: As per the “National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)” the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: Safety glasses

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

If risk of inhalation of exists, wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

When handling individual retail packs, no personal protection equipment is required.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information about basic physical and chemicals

The table below shows typical values only. Please consult the specification sheet for accurate values.

Physical Properties	
Base Units:	Litres
Form at 20°C	Fluid
Colour:	Light Blue
Odour:	Natural
Volatility	
Boiling temperature (°C)	59°C
Vapor pressure at 20°C	18587 Pa
Vapor Pressure at 50°C	63284 Pa
Evaporation rate at 20°C	Not Applicable
Product Characteristics	

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Density at 20°C	800 - 840 kg/m ³
Relative density at 20°C	0.800 - 0.840
Concentration	N/A
pH	N/A
Vapor density at 20°C	N/A
Water Solubility at 20°C	N/A
Solubility property	N/A
Decomposition temperature	N/A
Explosive properties	N/A
Oxidizing properties	N/A
C.O.V (provision)	98.86% weight
Concentration C.O.V at 20°C	809.42 g/L
Number of average carbons	2.93
Average molecular weight	65.68 g/mol

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

There are no dangerous reactions if storage instructions of chemical products comply.

10.2 Chemical stability

This product is thermally stable when stored and used as directed

10.3 Possibility of dangerous reactions

Under indicated conditions, dangerous reactions that may product an excessive pressure or excessive temperate are not expected.

10.4 Conditions that should be avoided

Applicable for handling and storage at room temperature:

- Shock and friction: N/A
- Contact with air: N/A
- Heating: Risk of inflammation
- Sunlight: Avoid direct sunlight exposure
- Humidity: N/A

10.5 Material Incompatibilities

- Acids: Avoid strong acids
- Water: N/A
- Oxidizing materials: Avoid direct incidence

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- Combustible materials: N/A
- Others: Avoid alkalis or strong bases

SECTION 11: TOXICOLOGY INFORMATION

11.1 Information about toxicological effects:

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

11.2 Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Eye contact: May be an eye irritant.

11.3 Acute toxicity

Inhalation: This material has been classified as non-hazardous.

Acute toxicity estimate (based on ingredients): >20 mg/L

Skin contact: This material has been classified as non-hazardous.

Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Ingestion: This material has been classified as non-hazardous.

Acute toxicity estimate (based on ingredients): >2,000 mg/Kg Corrosion/Irritancy:

Eye: this material has been classified as not corrosive or irritating to eyes.

Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser.

Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

11.3 Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

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Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

11.4 Toxicology information specific to substance

Identification	Acute Toxicity		Gender
Propan-2-ol CAS: 67-63-0	LD ₅₀ Oral	5280 mg/kg	Rat
	LD ₅₀ Cutaneous	12800 mg/kg	Rat
	LC ₅₀ Inhalation	72.6 mg/L (4h)	Rat
	LD _{LO} Oral	3750 mg/kg	Human
Polyvinylpyrrolidone-vinyl acetate copolymer CAS: 67-63-0	LD ₅₀ Oral	630 mg/kg	Rat
	LD ₅₀ Cutaneous	-	-
	LC ₅₀ Inhalation	-	-

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

- Toxicity to fish LC₅₀ L.macrochirus: 1400 mg/l/ 96h
- Toxicity to daphnia EC₅₀ Daphnia magna: 13299 mg/l /48h
- Toxicity to algae IC₅ Desmodesmus subspicatus: 1000 mg/l /72h
- Toxicity to bacteria EC₅ Ps. Putida: 1050 mg/l /16h

12.2 Persistence and degradability

- Biodegradability 95%/21 d, Readily biodegradable.

12.3 Bioaccumulative potential

- Partition coefficient (n-octanol/water):log Pow: 0.05 (experimental). No bioaccumulation is to be expected (log P o/w <1)

12.4 Mobility in soil

N/A

Not Available

12.5 Other adverse effects

Do not allow entrance into water ways, waste-water or soil

SECTION 13: DISPOSAL CONSIDERATIONS

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Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see “Section 8. Exposure Controls and Personal Protection” of this SDS. If possible, material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 Road and rail transport

Classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail” and the “New Zealand NZS5433: Transport of Dangerous Goods on Land”.



UN No: 1993

Dangerous goods class: 3

Packing group: II

Hazchem code: •2Y

Emergency response guide No: 14

Designated shipping name: Flammable Liquid, N.E.P (Propan-2-ol)

Segregation dangerous goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2), toxic substances (Class 6.1), infectious substances (Class 6.2) or radioactive substances (Class 7). Exemptions may apply.

14.2 Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN No: 1993

Dangerous goods class: 3

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Packing group: II

Designated shipping name: Flammable Liquid, N.E.P (Propan-2-ol)

14.3 Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 1993

Dangerous goods class: 3

Packing group: II

Designated shipping name: Flammable Liquid, N.E.P (Propan-2-ol)

SECTION 15: REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)

The Stockholm Convention (Persistent Organic Pollutants)

The Rotterdam Convention (Prior Informed Consent)

This material is subject to the following international agreements:

Basel Convention (Hazardous Waste)

- Wastes from the production, formulation and use of biocides and phytopharmaceuticals

International Convention for the Prevention of Pollution from Ships (MARPOL)

- Annex III - Harmful Substances carried in Packaged Form

This material/constituent(s) is covered by the following requirements:

- All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

SECTION 16: OTHER INFORMATION

Code Description

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- H225** Highly flammable liquid and vapour.
- H226** Flammable liquid and vapour.
- H319** Causes serious eye irritation.

Safety Data Sheet dated: 25 October 2022 - Version 1

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet does not constitute a product warranty or specification. It is the responsibility of the recipient of the product to ensure that applicable law is observed in the use of the product. This SDS cancels and replaces any preceding release

- ADR:** Agreement concerning the International Carriage of Dangerous Goods by Road.
- RID:** Regulation Concerning the International Transport of Dangerous Goods by Rail.
- IMDG:** International Maritime Code for Dangerous Goods.
- IATA:** International Air Transport Association.
- IATA-DGR:** Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
- ICAO:** International Civil Aviation Organization.
- ICAO-TI:** Technical Instructions by the "International Civil Aviation Organization" (ICAO).
- GHS:** Globally Harmonized System of Classification and Labelling of Chemicals.
- CLP:** Classification, Labelling, Packaging.
- EINECS:** European Inventory of Existing Commercial Chemical Substances.
- INCI:** International Nomenclature of Cosmetic Ingredients.
- CAS:** Chemical Abstracts Service (division of the American Chemical Society).
- LC⁵⁰:** Lethal concentration, for 50 percent of test population.
- LD₅₀:** Lethal dose, for 50 percent of test population.
- DNEL:** Derived No Effect Level.
- PNEC:** Predicted No Effect Concentration.
- TLV:** Threshold Limiting Value.
- TWATLV:** Threshold Limit Value for the Time Weighted Average 8-hour day. (ACGIH Standard).
- STEL:** Short Term Exposure limit.
- STOT:** Specific Target Organ Toxicity.
- WGK:** German Water Hazard Class.
- KSt:** Explosion coefficient.
- N/A:** Not Applicable