Safety Data Sheet

INTAMSYS PVA Filament Version 02

Section 1: Product and company identification

1. Identification of the material
INTAMSYS PVA Filament

2. Identified Uses
Used primarily for extrusion-based 3D printing processes

3. Manufacturer information
Manufacturer:
INTAMSYS TECHNOLOGY CO., LTD.
Address:
Building E11, 3188 Xiupu Road, Pudong New Area, Shanghai, China
Tel/Fax:
+86 021 58465932 / +86 021 58463623

4. Emergency contact number
Emergency telephone number:
+86 021 58465932; or call LOCAL POISON CONTROL CENTER

Section 2: Hazards identification

1. Classification of the substance of mixture
1.1. Classification according to Directive 67/548/EEC or 1999/45/EC as amended
This substance does not meet the criteria for classification according to Directive 67/548/EEC as amended.
1.2. Classification according to Regulation (EC) No 1272/2008 as amended
This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2. Label elements
No labelling.

3. Other hazards
Fine particles may form explosive mixtures with air. This material does not ignite easily; however, feasible precautions against dust explosion are recommended. Not a PBT or vPvB substance or mixture.

Section 3: Composition/information on ingredients

1. Substances

Chemical Name	CAS No.	Weight (%)	Exposure Limits
Polyvinyl alcohol, fully saponified	9002-89-5	70%-88%	None
Methanol (Impurity)	67-56-1200-659-6	<2%	None

Section 4: First aid measures

1. Description of first aid measures
1.1. Inhalation

If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

1.2. Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

1.3. Eye contact

Do not rub eye. Rinse with water. Get medical attention if irritation develops and persists.

1.4. Ingestion

Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

2. Most important symptoms and effects, both acute and delayed

Contact with dust: Irritation of eyes and mucous membranes. Coughing.

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

Provide general supportive measures and treat symptomatically.

Section 5: Fire-fighting measures

1. Suitable extinguishing media

Water fog. Foam. Dry powder. Carbon dioxide (CO2). Use fire-extinguishing media appropriate for surrounding materials. Apply extinguishing media carefully to avoid creating airborne dust.

2. Special hazards arising from the substance or mixture

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

3. Advice for fire fighters

3.1. Special protective equipment for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

3.2. Special firefighting procedures

Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.

Section 6: Accidental release measures

1. Personal precautions, protective equipment and emergency procedures

Use personal protection recommended in Section 8 of the SDS.

2. Environmental precautions

Environmental manager must be informed of all major spillages

3. Methods and materials for containment and cleaning up

Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Section 7: Handling and storage

1. Precautions for safe handling

Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

2. Conditions for safe storage

Keep container tightly closed. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS).

Section 8: Exposure controls/personal protection

1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Dust (CAS -)	TWA	4 mg/m3 10mg/m3	Respirable dust Inhalable dust
Methanol (Impurity) (CAS67-56-1)	STEL TWA	333 mg/m3 250ppm 266mg/m3 200ppm	

Biological limit values: No biological exposure limits noted for the ingredient(s)

Recommended monitoring procedures: Follow standard monitoring procedures.

Derived no-effect level (DNEL): Not available

Predicted no effect concentrations (PNECs): Not available

2. Engineering controls

Provide appropriate exhaust ventilation at places where dust is formed or the material is molten, such as during printing.

3. Personal protective equipment

Wear gloves when handling hot/molten material.

Section 9: Physical and chemical properties

1. Information on basic physical and chemical properties

Appearance: Filament, Solid
Color: Different according to coloration
Odor: Almost Odorless
Odor threshold: Not available
pH: 5-7
Melting point/freezing point: Not applicable
Boiling point: Not applicable
Flash point: Not applicable
Evaporation rate: Not applicable
Flammability: Not available
Upper/lower flammability or explosive limits: Not available

Vapor pressure: Not applicable
Vapor density: Not applicable
Relative density: Not applicable
Water Solubility: Soluble in water
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: Not applicable

Section 10: Stability and reactivity

1. Reactivity
Stable at normal conditions.

2. Chemical stability
Material is stable under normal conditions.

3. Possibility of hazardous reactions
Hazardous polymerization does not occur.

4. Conditions to avoid
Contact with incompatible materials. Avoid dust close to ignition sources.

5. Incompatible materials
Strong oxidizing agents. Strong acids.

6. Hazardous decomposition products
Carbon oxides.

Section 11: Toxicological information

1. Likely routes of exposure
Inhalation:
Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. May be harmful if inhaled.
Skin contact:
Components of the product may be absorbed into the body through the skin. Dust may irritate skin.
Eye contact:
Dust may irritate the eyes.
Ingestion:
May cause discomfort if swallowed.

2. Symptoms
Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.

3. Information on toxicological effects
Acute toxicity: Not expected to be acutely toxic.
Skin corrosion/irritation: Based on available data, the classification criteria are not met. Dust may irritate the eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
Respiratory sensitization: Based on available data, the classification criteria are not met.
Skin sensitization: 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.
Reproductive toxicity: Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure: Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure: Based on available data, the classification criteria are not met
Aspiration hazard: Due to the physical form of the product it is not an aspiration hazard.
Mixture versus substance information: Not applicable.
Other information: Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

Section 12: Ecological information

1. Toxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

2. Persistence and degradability
Expected to be inherently biodegradable.

3. Bioaccumulative potential
The product is not expected to bioaccumulate.

4. Mobility in soil
Not available.

5. Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal considerations

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate:
- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.

Section 14: Transport information

UN/ID No.: Not regulated
UN Proper shipping name: Not regulated
IMDG Code: Not regulated
Hazard Class: Not regulated
Packing Group: Not regulated
Special precautions: No information available
Marine pollutant: Non-marine pollutant

Section 15: Regulatory information

REGULATIONS
The product needs to follow local regulations.

Section 16: Other information

Revision information
Date of this revision: May 15, 2020
Declare to reader
During handling and use, product can cause static discharge. In the presence of flammable materials, a fire and/or explosion may occur. Molten material may cause thermal eye burns. Molten material may cause thermal skin burns. Processing vapors may cause respiratory tract irritation.