



MATERIAL SAFETY DATA SHEET
 according to Regulation (EU) No. 1907/2006

Polyvinyl Alcohol copolymer

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY / UNDERTAKING

Product information

Trade name : InnoSolve Water Soluble PVA

Chemical name : Polyvinyl Alcohol copolymer

Chemical family : Vinyl copolymer

Use : Monofilament for 3D-printing

Company : Innofil3D BV.
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 7821 AT Emmen

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2. HAZARDS IDENTIFICATION

Eye contact : Solid or dust may cause irritation or corneal injury due to mechanical action.

Skin contact : It is considered to be non-irritating to skin.

Ingestion : Oral toxicity is believed to be low.

Inhalation : Single exposure to dust is not likely to be hazardous.

Fire : Under fire conditions, this polymer may decompose to form flammable and/or explosive mixture in air.

Explosion : Dust explosion may occur, if a large amount of dust has released in air.



3. COMPOSITION / INFORMATION ON INGREDIENTS		
Component	CAS No.	wt%
Vinyl Alcohol copolymer	Listed	65.0 min.
Methanol	67-56-1	0.5 max.
Methyl Acetate	79-20-9	0.5 max.
Sodium Acetate	127-09-3	1.5 max.
Additive	Listed	32.5 max.
4. FIRST AID MEASURES		
Eye contact	:	Irrigate with flowing water for more than 15 minutes.
Skin contact	:	Wash off with flowing water.
Ingestion	:	Rinse mouth with water. Call a physician, if large amounts are ingested.
Inhalation	:	Rinse mouth with water. Remove to fresh air. Call a physician if needed.
Inhalation of decomposition gas	:	Remove to fresh air. Call a physician, if needed.
5. FIRE-FIGHTING MEASURES		
Hazardous decomposition products	:	Carbon dioxide, some carbon monoxide.
Extinguish media	:	Water, alcohol resistant foam, carbon dioxide and dry chemical.
Fire fighting instructions	:	Firemen should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.
6. ACCIDENTAL RELEASE MEASURES		
Personal precautions	:	It becomes slippery, when polymer gets wet.
Environmental precautions	:	Keep away from fire sources.
Spillage control	:	Filament - Sweep up and discard. Aqueous solution - Collect the solution and treat with activated sludge.



7. HANDLING AND STORAGE	
Handling	: Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Avoid eye contact and breathing dust.
Storage conditions	: Store in a cool dry place. All apparatus should be grounded to avoid electrostatic fire sources.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION	
Skin protection	: Protective gloves are preferable.
Eye protection	: Safety goggles are preferable.
9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	
Form	: Filament (yellowish, solid at room temperature)
Odour	: None or slightly vinegary
Relevant data	
Melting point	: 150 – 230 °C
Flash point	: More than 70 °C (as powder)
Ignition point	: More than 400 °C (as powder)
Explosive properties	: None
Oxidizing properties	: None
Bulk density	: 0.2 – 0.9
Specific gravity	: 1.2 – 1.3
Solubility	: Soluble in Water. Insoluble in Ethyl acetate, Benzene, Toluene, MIBK
10. STABILITY AND REACTIVITY	
Chemical stability	: Apparent decomposition above 300 °C. Stable at room temperature
Incompatibility	: Material can react with strong oxidizing agents.
11. TOXICOLOGICAL INFORMATION	
Eye irritation (rabbit)	: Minimal irritant (class 3 on a 1 to 8 scale) according to a modified Kay and Calandra classification system.
Skin irritation (rabbit)	: Mild irritant according to the Draize classification scheme.
Skin sensitisation (rat)	: Non-sensitiser according to EU Directive 2001/59/EC



Acute toxicity (rainbow trout) : LC50 of greater than 100 mg/l. (96 Hour).
Correspondingly the No Observed Effect Concentration was 100 mg/l.

12. ECOLOGICAL INFORMATION

Vinyl Alcohol copolymer is degraded by bacteria, such as *Pseudomonas species*.

13. DISPOSAL CONSIDERATIONS

Follow all relevant regulations for disposal in your country.

Filament : Burn in an incinerator.
Aqueous solution : Treat with activated sludge containing *Pseudomonas sp.*

14. TRANSPORT INFORMATION

Land transport; ADR / RID : Not restricted
Sea transport; IMO/IMDG : Not restricted
Air transport; IATA-DGR : Not restricted

15. TRANSPORT INFORMATION

	Vinyl Alcohol copolymer	Sodium Acetate	Methanol	Methyl Acetate	Additive
CAS No.	Listed.	127-09-3	67-56-1	79-20-9	Listed.
EINECS No.	-	204-823-8	200-659-6	201-185-2	-
ELINCS	Listed.	-	-	-	-
TSCA Inventory	Listed.	Listed.	Listed.	Listed.	Listed.

16. OTHER INFORMATION

-The information in this Material Safety Data Sheet (MSDS) is based on current knowledge and experience. No liability can be assumed for the accuracy and completeness of this information.

-Users should consider this information only as additional to other data gathered. Independent determination of suitability and completeness of information from all available sources is essential to ensure proper and safe use and disposal of these materials.

-The information in this MSDS applies for this specific material only. It therefore does not apply for its usage in combination with other materials or ways of processing.