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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
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	Trade name	:	InnoSolve Water Soluble PVA			
	Chemical name	:	Polyvinyl Alcohol copolymer			
	Chemical family	:	Vinyl copolymer			
	Use	:	Monofilament for 3D-printing			
	Company Telephone Telefax	:	Innofil3D BV. Eerste Bokslootweg 17 7821 AT Emmen +31 (0)591 69 2117 +31 (0)591 69 3456			
2	HAZARDS IDENTIFICATION	N				
2.						
2.	Eye contact	:	Solid or dust may cause irritation or corneal injury due to mechanical action.			
_ .	Eye contact Skin contact	:	Solid or dust may cause irritation or corneal injury due to mechanical action. It is considered to be non-irritating to skin.			
2.	Eye contact Skin contact Ingestion	:	Solid or dust may cause irritation or corneal injury due to mechanical action. It is considered to be non-irritating to skin. Oral toxicity is believed to be low.			
2.	Eye contact Skin contact Ingestion Inhalation	: : :	Solid or dust may cause irritation or corneal injury due to mechanical action. It is considered to be non-irritating to skin. Oral toxicity is believed to be low. Single exposure to dust is not likely to be hazardous.			
L .	Eye contact Skin contact Ingestion Inhalation Fire	: : : :	 Solid or dust may cause irritation or corneal injury due to mechanical action. It is considered to be non-irritating to skin. Oral toxicity is believed to be low. Single exposure to dust is not likely to be hazardous. Under fire conditions, this polymer may decompose to form flammable and/or explosive mixture in air. 			

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3.	COMPOSITION / INFORMATION ON INGREDIENTS					
	Component		CAS No.	wt%		
	Vinyl Alcohol copolymer			Listed	65.0 min.	
	Methanol Methyl Acetate			67-56-1	0.5 max.	
				79-20-9	0.5 max.	
	Sodium Acetate		127-09-3	1.5 max.		
	Additive		Listed	32.5 max.		
4.	4. FIRST AID MEASURES					
	Eye contact : Irrigate with flowing water for more than 15 minutes.				15 minutes.	
	Skin contact	:	Wash o	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 MEASURE	S				
	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 M	EA	SURES			
	Personal precautions Environmental precautions Spillage control	: :	It becomes slippery, when polymer gets wet. Keep away from fire sources. Filament - Sweep up and discard. Aqueous solution - Collect the solution and treat with activated sludge.			

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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.	9. PHYSICAL AND CHEMICAL PROPERTIES				
	Appearance				
	Form :	Filament (vellowish, 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			
	Bulk density				
	Specific gravity	1.2 - 1.3			
	Solubility Soluble in Water. Insoluble in Ethyl acetate, Benze 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	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 sensistation (rat) :	Non-sensitiser according to EU Directive 2001/59/EC			

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Acute toxicity (rai	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 cop	Vinyl Alcohol copolymer is degraded by bacteria, such as <i>Pseudomonas species</i> .								
13. DISPOSAL CONSIDERATIONS Follow all relevant regulations for disposal in your country. Filament : Burn in an incinerator. Aqueous solution : Treat with activated sludge containing <i>Pseudomonas sp.</i>									
14. TRANSPORT INFORMATION Land transport; ADR / RID : Not restricted Sea transport; IMO/IMDG : Not restricted Air transport; IATA-DGR : Not restricted									
15. TRANSPORT IN	FORMATION 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 off 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.