

Product name:		FRJet f	ilament		Page:
Date of compilation/revision	1. 6. 2023	Version: 2.0	Replaces:	Version: 1.0	- 1/11 -

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifier**

1.1	i router mentiner						
	Product name:	FRJet filament					
	Other means of identification:	not available					
	Registration number:	not required, the product is a mixture, not a compound					
.2	Relevant identified uses of the substance or mixture and uses advised against						
	Identified uses:	material for 3D-printing					
	Uses advised against:	not set					
.3	Details of the supplier of the safety data sheet						
	Distributor: (responsible for marketing)	Zemědělské družstvo Haňovice Haňovice 18 783 21 Chudobín Czech Republic tel.: +420 585 100 308 e-mail: <u>info@plastymladec.cz</u> web: <u>www.filament-pm.com</u>					
	Competent person responsible	e for the safety data sheet: PharmDr. Vladimír Végh, PHARMIS, info@pharmis.cz					
.4	Emergency telephone numb						
		re, Na Bojišti 1, Praha; 24-h non-stop: +420-224919293 / +420-224915402.					
	Information only on health risks: acute intoxications of people / animals.						
Gene		ure: based on the composition and calculation methods of classification the mixture is					
Geno lass he p lealt narl	eral classification of the mixt sified as hazardous in complia product, the release of hazard th by inhalation, ingestion or	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on th .rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label					
Geno class the p nealt narl	eral classification of the mixt sified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on th rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008.					
Gene lass he p lealt narl	eral classification of the mixt sified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC)	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on th rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008. Ince or mixture STOT RE 2 Specific target organ toxicity - repeated exposure, category 2					
Gend lass he p lealt narl lacco	eral classification of the mixt sified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC) Classification of the substar Classification in accordance	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on th rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008. Ince or mixture STOT RE 2 Specific target organ toxicity - repeated exposure, category 2					
Gend lass he p lealt narl lacco	eral classification of the mixt sified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC) Classification of the substan Classification in accordance with 1272/2008/EC:	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on th rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008. Ince or mixture STOT RE 2 Specific target organ toxicity - repeated exposure, category 2					
Gend lass he p lealt narl cco	eral classification of the mixtasified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC) Classification of the substan Classification in accordance with 1272/2008/EC: Label elements	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on the reticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008. store or mixture STOT RE 2 Specific target organ toxicity - repeated exposure, category 2 May cause damage to organs through prolonged or repeated exposure In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture					
Gend lass he p lealt narl lacco	eral classification of the mixtasified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC) Classification of the substan Classification in accordance with 1272/2008/EC: Label elements Contains:	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on the rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008.In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008					
Gend lass he p lealt narl lacco	eral classification of the mixtr sified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC) Classification of the substar Classification in accordance with 1272/2008/EC: Label elements Contains: Hazard pictograms:	ure: based on the composition and calculation methods of classification the mixture is ance with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on the rrticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008.STOT RE 2 H373Specific target organ toxicity - repeated exposure, category 2 May cause damage to organs through prolonged or repeated exposureIn accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulatio					
Geno class the p healt marl	eral classification of the mixtasified as hazardous in complia product, the release of hazard th by inhalation, ingestion or ket. In accordance with the A ording to the Regulation (EC) Classification of the substar Classification in accordance with 1272/2008/EC: Label elements Contains: Hazard pictograms: Signal word:	ure: based on the composition and calculation methods of classification the mixture is nnce with the Regulation (EC) 1272/2008. However, because of the polymeric form of lous compounds is not expected and the mixture does not present a hazard to human contact with skin or to the aquatic environment in the form in which it is placed on the rticle 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label 1272/2008.STOT RE 2 H373Specific target organ toxicity - repeated exposure, category 2 May cause damage to organs through prolonged or repeated exposureIn accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 the mixture does not require a label according to the Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance with the Article 1.3.4, Annex I, Regulation (EC) 1272/2008 In accordance wit					

		cor	forms to Regulatio	and Commission Reg), Regulation EC No. 1 20 No. 2020/878	272/2008 (0	CLP)
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	Precautionary statements:					ulation (EC) 1272 n (EC) 1272/2008		e mixture
	Other required labeling:	not required						
2.3	Other hazardsResults of PBT and vPvB assessment: The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, Annex XIII. No substances presented in the mixture at a concentration ≥ 0.1 % by weight are included in the Candidate List of SVHC.No substances presented in the mixture at a concentration ≥ 0.1 % by weight are included in the list established in accordance with Article 59(1) for having endocrine disrupting properties; nor are they identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or							
	Commission Regulation (EU	J) 2018/605.						
	Important health effects:	of usage, the contacted with Inhaling of lo	mixture is bio th skin and eye oosen dust or p	logically inert. Ŵ es. Ingestion of a otential decompo	/hen m small a osition	For the mixture un elted, it can cause amount should no products of melte atory system and	e serious ot cause a ed/overhe	burns if ny troubles. ated mixture
	Important environmental effects:		inert. Within th			l for the mixture; ture underlies ver		
	Important physico-chemical effects:	Not known.						
SEC	CTION 3: COMPOSITION/II			DIENTS				
	CTION 3: COMPOSITION/II Product based on glycol mod Substances does not apply	NFORMATION			additiv	/es.		
3.1	Product based on glycol mod	NFORMATION dified polyethyl lth or environm onal workplace of	ene terephthal ental hazard w exposure limit.	ate (PETG) with	g of the	e Regulation (EC)		
3.1 3.2 Sub	Product based on glycol model Substances does not apply Mixtures Substances presenting a heat assigned a Community/national	NFORMATION dified polyethyl lth or environm onal workplace of	ene terephthal ental hazard w exposure limit.	ate (PETG) with	g of the T/vPvF C r 12	e Regulation (EC)		late List of
3.1 3.2 Sub <i>REA</i> alum	Product based on glycol model Substances does not apply Mixtures Substances presenting a hear assigned a Community/nation SVHC, identified as having stance	NFORMATION dified polyethyl lth or environm onal workplace o endocrine disru	ene terephthal ental hazard w exposure limit. ptive propertie Content	ate (PETG) with ithin the meaning classified as PB ss: EC Number CAS Number	g of the T/vPvF r 12 er Fl	e Regulation (EC) 3 or included in th Classification 272/2008/EC* lam. Sol. 1		late List of Exposure
3.1 3.2 Sub <i>REA</i> alum <i>REA</i>	Product based on glycol mod Substances does not apply Mixtures Substances presenting a heat assigned a Community/nation SVHC, identified as having stance ACH Registration number	NFORMATION dified polyethyl lth or environm onal workplace of endocrine disru 0000 one, 5) triamine (1:1) 000	ene terephthal ental hazard w exposure limit, ptive propertie Content (% w/w) 10 - 20 10 - 20	ate (PETG) with ithin the meaning classified as PB ss: EC Number CAS Number Index Numb 479-150-8 7784-22-7 - 253-575-7 37640-57-6 -	g of the T/vPvF er 12 er Fl A	e Regulation (EC) 3 or included in th Classification 272/2008/EC* lam. Sol. 1 quatic Chronic 3 TOT RE 2	H228 H412 H373	late List of Exposure limits
3.1 3.2 Sub REA alum REA	Product based on glycol mod Substances does not apply Mixtures Substances presenting a hea assigned a Community/nation SVHC, identified as having stance ICH Registration number sinium hypophosphite CH No.: 01-0000020003-90-0 Striazine-2,4,6(1H,3H,5H))triazine-2,4,6 CH No.: 01-0000020003-90-0 Other compounds Other substances not present	NFORMATION dified polyethyl lth or environm onal workplace of endocrine disru 000 000 5)triamine (1:1) 000 * For ful	ene terephthal ental hazard w exposure limit. ptive propertie Content (% w/w) 10 - 20 10 - 20 <i>I wording of used</i>	ate (PETG) with ithin the meaning classified as PB ss: EC Number CAS Number Index Numb 479-150-8 7784-22-7 - 253-575-7 37640-57-6 - classification abbrev hazard within th	g of the T/vPvF er 12 er Fl Ad iations a e mean	e Regulation (EC) 3 or included in th Classification 272/2008/EC* lam. Sol. 1 quatic Chronic 3 TOT RE 2 and Hazard Statement.	H228 H412 H373 s (H-phrase	List of Exposure limits
3.1 3.2 Sub REA 1,3,5 comp REA Sub	Product based on glycol mod Substances does not apply Mixtures Substances presenting a hea assigned a Community/nation SVHC, identified as having stance ICH Registration number sinium hypophosphite CH No.: 01-0000020003-90-0 Striazine-2,4,6(1H,3H,5H))triazine-2,4,6 CH No.: 01-0000020003-90-0 Other compounds	NFORMATION dified polyethyl lth or environm onal workplace of endocrine disru 000 000 5)triamine (1:1) 000 * For ful	ene terephthal ental hazard w exposure limit. ptive propertie Content (% w/w) 10 - 20 10 - 20 <i>I wording of used</i>	ate (PETG) with ithin the meaning classified as PB ss: EC Number CAS Number Index Numb 479-150-8 7784-22-7 - 253-575-7 37640-57-6 - classification abbrev hazard within th	g of the T/vPvF er 12 er Fl Ad ST iations a e mean B nor i	e Regulation (EC) 3 or included in th Classification 272/2008/EC* lam. Sol. 1 quatic Chronic 3 TOT RE 2 and Hazard Statement.	H228 H412 H373 s (H-phrase	late List of Exposure limits

<u>Filament</u>	confo	orms to Regulation EC No. 190'	Y DATA SI 7/2006 (REACH), Reguination Regulation EU No.	ulation EC No. 1272/2008 (CLI	?)		
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Version: 1.0

SECTION 4: FIRST AID MEASURES

Date of compilation/revision

4.1 **Description of first aid measures**

Health hazard is no minimal, being neither irritating, corrosive, volatile, nor toxic. Effects of over exposure: There are no hazards under normal use conditions. Observe all user considerations and safety measures stated on the packaging. In case of any health problem or uncertainty seek medical attention and provide information from this Material Safety Data Sheet. Unconscious persons place in the stabilized position and observe the breathing. Never give any fluids to unconscious persons. Be careful when manipulating hot products - danger of skin burns.

Inhalation:	No adverse effects are expected under normal conditions of use. Direct inhalation exposure is not expected. Dust or potential decomposition products of melted/overheated mixture in high concentration can cause airway irritation. In this case remove the affected persons to a fresh air. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation. Call immediately medical emergency.
Skin contact:	No adverse effects are expected under normal conditions of use - no special requirements needed. In case of a skin contact with melted polymer do not remove it from the skin. Cool down the burnt area with a stream of cold water and call the professional medical help.
Eye contact:	No adverse effects are expected under normal conditions of use - no special requirements needed. Dust or potential decomposition products of melted polymer can cause eye irritation. Seek medical advice if the eye irritation persists. Direct contact of eye with melted product can cause serious eye damage. Seek professional medical help immediately.
Ingestion:	No adverse effects are expected under normal conditions of use - no special requirements needed. This type of exposure is not expected.

4.2 Most important symptoms and effects, both acute and delayed

No adverse effects for human health are expected for the mixture under normal conditions of usage, the mixture is biologically inert. When melted, it can cause serious burns if contacted with skin and eyes. Ingestion of a small amount should not cause any troubles. Inhaling of loosen dust or potential decomposition products of melted/overheated mixture in high concentration can irritate moderately respiratory system and mucous membranes.

Indication of any immediate medical attention and special treatment needed 4.3 No specific therapy known. Use supportive and symptomatic treatment.

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SECTION 5: FIREFIGHTING MEASURES

5.1 **Extinguishing media**

Suitable extinguishing media:	water spray, alcohol resistant foam, dry-powder, carbon dioxide
Unsuitable extinguishing media:	direct water stream - could spread fire

5.2 Special hazards arising from the substance or mixture

Not flammable (classification V-0, EN 60695-11-10 ed.2). Contains flame retardants. In case of fire in the surrounding incomplete combustion and thermolysis may produce toxic, irritating and flammable decomposition products (such as carbon monoxide, carbon dioxide, sooth, aldehydes and other products of organic compounds decomposition, phosphorous oxides). Do not inhale smokes.

5.3 Advice for fire-fighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Fight fire from protected location or safe distance. Move container from fire area if this is possible without hazard. If possible, avoid leaked water to enter sewage system or environment.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections 6 and 8.

Filament 🕅		confo	SAFETY DATA SHEET conforms to Regulation EC No. 1907/2006 (REACH), Regulation EC No. 1272/2008 (CLP) and Commission Regulation EU No. 2020/878					
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SEC ⁻ 6.1	TION 6: ACCIDENTAL F	otective equipmen	it and emergency pro					
		Detective equipmen re needed. Observe ptective measures n	at and emergency pro	is and safety measu				

recycle. 6.4 **Reference to other sections** Adhere to instructions in the section 8 and 13. **SECTION 7: HANDLING AND STORAGE** 7.1 Precautions for safe handling Observe all user considerations, safety measures and exposure limits. See Section 8 for advice on the minimum requirements for personal protective equipment. Avoid breathing decomposition products or loosened dust. Use only with adequate ventilation. Observe all fire protection measures (work with open flame is prohibited, remove all possible sources of ignition, smoking is prohibited). During the product's thermal treatment small amounts of volatile organic compounds may be released. Thus suction and discharge of these emissions must be locally secured. Dust from the product represents a potential explosion hazard and as such it must be continuously removed. All devices must be properly grounded. 7.2 Conditions for safe storage, including any incompatibilities Observe all fire protection measures (work with open flame is prohibited, remove all possible sources of ignition, smoking is prohibited). Keep away from direct sunlight and heat sources. 7.3 Specific end uses material for 3D-printing **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION** 8.1 **Control parameters** Indicative occupational exposure limit EU: not set CAS Substance name Indicative occupational exposure limit _ National work-place / occupational exposure limits (only selected lands are displayed):

CAS	Substance name	Occupational exposure limits			
-	glycol modified polyethylene terephthalate (PETG) <i>as: polymeric materials dust</i>	Czech republic PELc 5.0 mg.m ⁻³ (Government Regulation no. 361/2007 Coll.)			
* hooming	of physical status, this type of exposure is not expected, however	mechanical grinding/cutting can release the dust			
because c	y physical status, this type of exposure is not expected, however	incontinear grinning, caring can recease the aust			
	e biological limits: not set				
Indicative					
Indicative	e biological limits: not set	OEL - equivalents			

F	<u>ilament</u> 🕅	SAFETY DATA SHEET conforms to Regulation EC No. 1907/2006 (REACH), Regulation EC No. 1272/2008 (CLP) and Commission Regulation EU No. 2020/878					
rod	luct name:	FRJet filament					
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	Derived No Effect Level (DN Compounds: <u>aluminium hypophosphite</u> <i>workers / professional users</i> inhalation, systemic effects: dermal, systemic effects: Predicted No Effect Concentr Compounds: <u>aluminium hypophosphite</u> Fresh water		0,8 mg/m ³ 3 mg/kg bw/day				
	Marine Intermittent release		10 μg/l 1 mg/l				
2	Sewage Treatment Plant		10 mg/l				
2	Exposure controls Appropriate engineering cont						
	 conditions such as application protective equipment for use Individual protection measured a) Eye / face protection No special requirements a exists, use safety glasses v 	with this materia es, such as perso re needed under	al, as provided below, nal protective equipm normal conditions of	, is based upon inter- nent:	nded, normal usage.		
	 b) Skin protection: No special requirements at use heat isolating gloves n Example of recommended 	re needed under nade of para-arai	normal conditions of mid/carbon with them	mal isolation up to	270°C and forearm pro	otection.	
	NOTICE: The selection of a s take into account all releva physical requirements (cut materials, as well as the in gloves	ant workplace fa /puncture protec	ctors such as, but not ction, dexterity, therm	limited to: Other c nal protection), pote	hemicals which may b ential body reactions to	e handled, glove	
	c) Respiratory protection: No special requirements a workplace. Do not inhale operations. If engineering protect worker health, an a in accordance with regulat include: half-face particle standards EN 136, 140 and recommendations).	decomposition p controls do not n approved respira ory requirement filter respirator,	roducts from overhea naintain airborne cor tor may be appropria s, if applicable. Type type P1 or FFP1filter	ated product or dust ataminant concentra te. Respirator select s of respirators to b (European Commi	produced by mechani ations at a level which tion, use, and maintena be considered for this n ittee for Standardizatio	cal is adequate ance must b naterial on (CEN)	
	d) Thermal hazards: No such risk when normal	ly used.					
	Environmental exposure cont Comply with applicable en by applying appropriate co equipped for the sanation	nvironmental reg	to prevent or limit em	nissions. All storage	e and manipulation are		



Not known.

SAFETY DATA SHEET

conforms to Regulation EC No. 1907/2006 (REACH), Regulation EC No. 1272/2008 (CLP) and Commission Regulation EU No. 2020/878

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Information on basic physical and chemical properties						
P	roperties	value	method / condition			
P	hysical state:	solid wire	20°C			
C	Colour:	various / according to specification	-			
0	Ddour:	no odour	-			
M	felting point/freezing point:	210°C	-			
В	oiling point/range or initial boiling point:	information not available	-			
F	lammability:	information not available	-			
U	pper/lower flammability or explosive limits:	information not available	-			
F	lash point:	information not available	-			
A	uto-ignition temperature:	information not available	-			
D	Decomposition temperature:	information not available	-			
pl	H:	information not available	-			
K	inematic viscosity:	information not available	-			
S	olubility:	insoluble in water soluble in 1,2 dichloroethane, toluene, tetrahydrofuran	water, 20°C ISO 1183/B			
Pa	artition coefficient: n-octanol/water:	information not available				
V	Vapour pressure:	information not available				
D	Density and/or relative density:	1,24 g/cm ³				
R	elative vapour density:	information not available	-			
Pa	article characteristics:	not applicable	-			
0	Other information					
V	icat softening temperature:	85°C	ISO 306			
Η	leat deflection temperature:	70°C	ISO 75			
E	xplosive properties:	no explosive properties	-			
0	Oxidising properties:	no oxidative properties	-			
СТІС	TION 10: STABILITY AND REACTIVITY					
	Reactivity Not reactive under normal conditions of storage and manipulation.					
M	Chemical stability Iixture is chemically stable under normal cond ecomposition.	litions of storage and manipulation. Overhea	ating may cause thermal			
	ossibility of hazardous reactions lot known.					
	C onditions to avoid Iot known.					
	ncompatible materials					

<u>F</u> i	ilament 🕅	confo	rms to Regulation EC No. 1	TY DATA S 907/2006 (REACH), Reg ission Regulation EU No	gulation EC No. 1272/2008 (C	LP)
Produ	act name:		FRJe	t filament		Page:
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	Hazardous decomposition p Material does not decompose irritating and flammable deco products of hydrocarbons dec	at ambient temp mposition produ omposition).	icts (such as carbon n			
11.1	Information on hazard class No adverse effects for human biologically inert.				tions of usage, the mix	ture is
a)	Acute toxicity Based on available data, the c and no adverse effects for hur Compounds: <u>aluminium hypophosphite</u> LD50, oral, rat: LD50, dermal, rat: LD50, inhalation, rat:			ble conditions of e		eute toxicity
	<u>1,3,5-triazine-2,4,6(1H,3H,5H</u> LD50, oral, rat: LD50, dermal, rat:	I))trione, compo	e v	·	<u>1:1)</u>	
<i>b)</i>	Skin corrosion/irritation Based on available data, the c Melted product may cause ser				ect corrosive / irritating	g properties.
<i>c)</i>	Serious eye damage/irritation Based on available data, the c Melted product may cause ser	lassification crit			ect corrosive / irritating	g properties.
<i>d)</i>	Respiratory or skin sensitisati Based on available data, the c		eria are not met.			
e)	<i>Germ cell mutagenicity</i> Based on available data, the c	lassification crit	eria are not met.			
f)	<i>Carcinogenicity</i> Based on available data, the c	lassification crit	eria are not met.			
g)	<i>Reproductive toxicity</i> Based on available data, the c	lassification crit	eria are not met.			
h)	<i>STOT-single exposure</i> Based on available data, the c mechanically irritate airways.				ened dust during manip	pulation can
i)	STOT-repeated exposure May cause damage to organs release of hazardous compour ingestion or contact with skin	nds is not expect				
j)	Aspiration hazard Based on available data, the c	lassification crit	eria are not met.			
11.2	Information on other hazar	ds				
	<i>Endocrine disrupting properti</i> No substances presented in th accordance with Article 59(1) disrupting properties in accord Commission Regulation (EU)	e mixture at a co for having endo dance with the c	ocrine disrupting prop	perties; nor are they	v identified as having e	ndocrine

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	<i>Other information</i> Not available.						
SEC	TION 12: ECOLOGICAL I	NFORMATION					
	No adverse effects in the en	vironment are exp	bected for the mixture	; the mixture is bio	logically almost inert.		
2.1	Toxicity No data measured for the mixture. No adverse effects in the environment are expected for the mixture; the mixture is almost biologically inert. Compounds:						
	aluminium hypophosphite LC50, fish, 96 h: EC50, water invertebrates, 4 EC50, green algae, 48 h:	48 h:	> 100 mg/l (<i>I</i> > 100 mg/l (<i>I</i> > 100 mg/l (r	Daphnia magna)			
	<u>1,3,5-triazine-2,4,6(1H,3H,5</u> LC50, fish, 96 h: EC50, water invertebrates, 4		> 100 mg/l (<i>I</i>		<u>1:1)</u>		
2.2	Persistence and degradability Within the environment, it is almost inert material with a very slow decomposition.						
2.3	Bioaccumulative potential The mixture has no bioaccu Compounds:		l.				
	aluminium hypophosphite log P _{o/w} :		<-3.05				
	$\frac{1,3,5-\text{triazine-}2,4,6(1\text{H},3\text$	· · ·	2.28 < 3.8	<u>ne-2,4,6)triamine (</u>)	<u>1:1)</u>		
12.4	Toxicity No data measured for the mixture. No adverse effects in the environment are expected for the mixture; the mixture is almost biologically inert.						
	Compounds: <u>aluminium hypophosphite</u> LC50, fish, 96 h: EC50, water invertebrates, ⁴ EC50, green algae, 48 h:	48 h:	> 100 mg/l (<i>I</i> > 100 mg/l (<i>I</i> > 100 mg/l (r	Daphnia magna)			
	<u>1,3,5-triazine-2,4,6(1H,3H,5</u> LC50, fish, 96 h: EC50, water invertebrates, 4		> 100 mg/l (<i>I</i>		<u>1:1)</u>		
2.5	Results of PBT and vPvB assessment The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII; the substances in the mixture are not included in the Candidate List of SVHC						
2.6	Endocrine disrupting properties No substances presented in the mixture at a concentration ≥ 0.1 % by weight are included in the list established in accordance with Article 59(1) for having endocrine disrupting properties; nor are they identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.						
2.7	Other adverse effects						



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SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

It is recommended to dispose all rests in authorized dangerous waste facility. Disposal has to comply all local legal requirements on wastes.

Substance or mixture disposal methods:

Dispose in accordance with the valid waste legislation. Do not dispose as a common household waste. Dispose in a certified waste facility / recycle. According to the European Waste Catalogue waste codes are not specific for product, but for its use. Therefore, appropriate waste code should assign final user according to his specific use.

Proposed waste classification, based on the most common use:

07 Wastes from Organic Chemical Processes 07 02 wastes from the MFSU of plastics, synthetic rubber and man-made fibres Waste type name: waste plastic Waste catalog code: 07 02 13 Hazardous waste: no

Packages disposal methods: Recycle empty packages.

Proposed waste classification, based on the most common use:

15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified 15 01 packaging (including separately collected municipal packaging waste) Waste type name: paper and card board packaging / plastic packaging Waste catalog code for empty package: 15 01 01 / 15 01 02 Dangerous waste: no

SECTION 14: TRANSPORT INFORMATION

The substance is not classified as dangerous for transport according to ADR/RID/IMDG/ICAO/IATA.

14.1 UN Number or ID Number: -

14.2	UN proper shipping name						
	Road transport ADR	Rail transport RID	Int. maritime trans. IMDG	Air transport ICAO/IATA			
1	-	-	-	-			
14.3	Transport hazard class(e	s)					
1	Road transport ADR	Rail transport RID	Int. maritime trans. IMDG	Air transport ICAO/IATA			
	-	-	-	-			
1	Classification code						
	-	-	-	-			
]	Hazard identification nur	mber (Kemler)					
	-	-	-	-			
	Labels						
	-	-	-	-			
	Other remarks						
	-	-	-	-			
14.4	Packing group						
	Road transport ADR	Rail transport RID	Int. maritime trans. IMDG	Air transport ICAO/IATA			
	-	-	-	-			



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14.5 Environmental hazards: no

14.6 Special precautions for user: not required

14.7 Maritime transport in bulk according to IMO instruments: not transported

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant legislation European Union:

- Regulation (EC) No 1907/2006 of the European Parliament and of the , concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Regulation EC No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
- Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
- Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
- Commission Directive (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC
- Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
- Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
- European Waste Catalogue
- Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations
- Regulation (EU) No 526/2013 of the European Parliament and of the Council of 21 May 2013 concerning the European Union Agency for Network and Information Security (ENISA) and repealing Regulation (EC) No 460/2004

Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: none

Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
aluminium hypophosphite REACH No.: 01-0000020003-90-0000	Regulation EC 1907/2006, Annex XVII, Article 3 Regulation EC 1907/2006, Annex XVII, Article 40
1,3,5-triazine-2,4,6(1H,3H,5H))trione, compound with 1,3,5-triazine-2,4,6)triamine (1:1) <i>REACH No.: 01-0000020003-90-0000</i>	Regulation EC 1907/2006, Annex XVII, Article 3

15.2 Chemical safety assessment

Chemical safety assessment not carried yet

SECTION 16: OTHER INFORMATION

a) Changes made to the previous version of the safety data sheet Not applicable, first edition - version 1.0

Key or legend to abbreviations and acronyms used in the safety data sheetFlam. Sol. 1Flammable solid, category 1STOT RE 2Specific target organ toxicity — repeated exposure, category 2Aquatic Chronic 3Hazardous to the aquatic environment, category 3

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	Exp. lim.	Exposure limit						
	NPEL		ssible	exposure limit (Slov	ak Republic)			
	PEL			exposure limit (Czec				
	OEL	Occupational expo)			
	PBT			ioacumulative and to:	xic			
	vPvB			ent and very bioacum				
	VOC	Volatile organic c						
	DNEL	Derived No Effect						
	PNEC	Predicted No Effe						
	BW							
	LD50	Body weight Median lethal Dos						
			-	tion				
	LC50	Median lethal con						
	EC50	Half maximal effe						
	IC50	Half maximal inhi				~ ~		
	ADR					Dangerous Goods by Ro	bad	
	RID			ransport of Dangerou		aılway		
	IMDG			Dangerous Goods Co	de			
	ICAO	International Civil						
	IATA	International Air	Fransp	oort Association				
<i>c)</i>	<i>Key literature refe</i> No information	rences and sources fo	or dat	a				
d)	<i>Methods of evaluating information used for the purpose of classification</i> The substance was classified by expert judgment and conventional calculations methods in accordance with the Regulation EC No. 1272/2008 (CLP).							
e)	-	ed Hazard Statement	s (H-1	ohrases)				
~	H228	Flammable solid.	1	/				
	H373	May cause damag	e to o	rgans through prolong	ged or repeated exi	posure		
	H412			with long lasting effe		L		
_f)	Advice on any trai	ning appropriate for	worke	225				
<i>J</i> /	Advice on any training appropriate for workers Before handling, storing or using the present substance for the first time, employees must be informed - common training for handling chemicals, occupational safety training.							
	No. 1272/2008 (C occupational healt is accurate to the b supplied and may	(SDS) is compiled in LP) and Commission h protection, and env best of knowledge at t	Regu ironm the dat res wi	lation EU No. 2020/8 ental protection. The te indicated above. Th	878; and contains in information contanis particular information	7/2006 (REACH), Regunformation on safety us ined herein is given in g mation applies on the p rposes as identified in t	e, good faith and roduct as	
	The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfill his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.							
	Compiled: Pharml	Dr. Vladimír Végh, P	HAR	MIS, <u>www.pharmis.c</u>	Z			