VSHAPER®

PA+CF

SAFETY DATA SHEET

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

Product identifier	
Trade name	PA+CF
Relevant identified uses	3D printing filament. Material for 3D printing FDM applications
Details of the supplier of the safety data sheet	
Manufacturer/Supplier	VSHAPER Sp. z o.o.
Address	Tajęcina 105, 36-002 Jasionka-Rzeszów
Telephone	+48 801 011 637
Email	contact@vshaper.com
Emergency telephone number	EU-wide emergency number: 112

2. HAZARD IDENTIFICATION

Classification of the substance/mixture	
Classification according to EU Directives 67/584/EEC	This product is not classified as dangerous according to EC criteria
Label elements	
Labelling according to EC Directives	This product is not classified as dangerous according to EC criteria
Other hazards	No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description	Polyamide 12 – carbon fiber – additives/modifiers – This Product is a Mixture
Dangerous components	Void
Additional information	for the wording of the listed risk phrases refer to section 16

4. FIRST AID MEASURES

General advice	First Aid responders should pay attention to self-protection and use the recommended protective clothing.
Inhalation	Move person to fresh air; if effects occur, consult a physician

Skin contact	Wash skin with plenty of water. With prolonged skin irritation, seek first aid or medical attention.
Eye contact	Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician.
Ingestion	If swallowed, seek medical attention.
Most important symptoms and effects, both acute and delayed	No further relevant information available
Indication of medical attention and special treatment needed	No further relevant information available

5. FIREFIGHTING MEASURES

Extinguishing media	Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam.
Special hazards arising from the substance or mixture	**Can be released in case of fire:** · Carbon Monoxide (CO) · Carbon Dioxide (CO2) · Nitrogen Oxides (NOx) · Hydrogen Cyanide (HCN)
Advice for firefighters	**Protective equipment** – Use self-contained breathing apparatus and protective fire fighting clothes
Additional information	Dispose of fire debris and contaminated fire fighting water in accordance with official regulations

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Spilled material may cause a slipping hazard. Use appropriate safety equipment
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater
Methods and material for containment and cleaning up	Sweep up. Collect in suitable and properly labeled containers

7. HANDLING AND STORAGE

Precautions for safe handling	No smoking, open flames or sources of ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product. Avoid breathing process fumes. Workers should be protected from the possibility of contact with molten resin. Do not get molten material in eyes, on skin or clothing. Protect against electrostatic charges
Conditions for safe storage, including any incompatibilities storage	Store in accordance with good manufacturing practices, in cool place and far from direct sunlight. Protect from humidity and keep away from water.
Specific end use(s)	For the relevant identified uses listed in section 1 the advice mentioned in this section is to be observed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Control parameters	None established
Personal protection	
Eye/Face Protection	Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator.
Skin Protection	No precautions other than clean body-covering clothing should be needed
Hand protection	Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves with insulation for thermal protection (EN 407), when needed. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.
Respiratory Protection	Not necessary if room is well ventilated
Ingestion	Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating
Ventilation	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties	
Physical state:	solid
Colour:	black
Odor:	Nearly odorless
Odor threshold:	N/A
pH:	N/A
Melting point:	170-190°C
Freezing point:	N/A
Boiling point:	N/A
Flash point:	N/A
Flammability:	N/A
Specific Gravity:	0.98 g/cc
Solubility in water:	Insoluble
Autoignition Temp	product is not selfigniting
Decomposition Temp.:	>350°C
Oxidizing properties:	N/A
Explosive properties	Product is not explosive
Molecular Weight	N/A

10. STABILITY AND REACTIVITY

Reactivity	Reacts with strong acids and oxidizing agents
Chemical stability	Stable
Possibility of hazardous reactions	This product is not capable of dust explosion in the form supplied. Enrichment with fine dust causes risk of dust explosion
Conditions to avoid	No further relevant information available
Incompatible materials	Strong acids, strong oxidizing agents
Hazardous decomposition products	None known

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects	
Ingestion	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed.
Aspiration hazard	Based on physical properties, not likely to be an aspiration hazard.
Dermal	No adverse effects anticipated by skin absorption
Inhalation	No adverse effects are anticipated from single exposure to dust.
Eye damage/eye irritation	Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation.
Skin corrosion/irritation	Prolonged contact is essentially nonirritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.

12. ECOLOGICAL INFORMATION

Toxicity	Not expected to be acutely toxic.
Persistence and degradability	This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected
Bioaccumulative potential	No bioconcentration is expected because of the relatively high molecular weight.
Mobility in soil	In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
For uncontaminated material the disposal options include mechanical and chemical recycling or energy recovery. In some countries landfill is also allowed. For contaminated material the options remain the same, although additional evaluation is required. For all countries the disposal methods must be in compliance with national and provincial laws and any municipal or local by-laws. All disposal methods must be in compliance with the EU framework Directives 2008/98/EC and their subsequent adaptations, as implemented in National Laws and Regulations, as well as EU Directives dealing with priority waste streams.

14. TRANSPORT INFORMATION

Not Classified – not regulated as hazardous material

15. REGULATORY INFORMATION

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

European Inventory of Existing Commercial Chemical Substances (EINECS)
Components of this product are in compliance with REACH. ROHS not applicable.

15. OTHER INFORMATION

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

The information herein is given in good faith, but no warranty, express or implied, is made. Consult the Company for further information.