



# Safety Data Sheet

According to (EC) Nr. 1907/2006

Edition Date: 01.01.2023

Version 4.00

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## Trade name: Polyamide 6 (PA6) Filament Yarns

### 1. Identification of the substance / mixture and of the company / undertaking

#### 1.1. Product identifier

Polyamide 6 (PA6) Filament Yarns

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against:

Industrial application (tires, MRG, ropes, nets, fabrics...)

#### 1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Nexis Fibers a. s., Chemlonská 1, 066 12 Humenné, Slovakia  
Tel. +421 57 787 3145, Fax +421 57 772 2650  
E-Mail: [productsafety@nexis-fibers.com](mailto:productsafety@nexis-fibers.com)

#### 1.4. Emergency telephone number:

+421 (0)57 787 3370 (Nexis Fibers a. s.) - during normal Slovak business hours

### 2. Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

The product is not classified as dangerous according to the CLP regulation.

**2.2. Label elements** The product not needs the labelling n according to Regulation (EC) Nr. 1272/2008

#### 2.3. Other hazards

Melted product may cause severe burns.

To the best of our knowledge, Polyamide 6 product have not been associated with negative effect on humans if used in accordance with good industrial hygiene practice and any legal requirements.

### 3. Composition / information on ingredients

**3.1. Substances** Not applicable, this product is a mixture

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### 3.2. Mixtures

#### 1. Chemical nature of base polymer:

- Polyamide 6 (PA6), Poly( $\epsilon$ -caprolactame) CAS Number 25038-54-4. Amount >98%
- Heat protected yarn types contain alkali-halogenides and copper salts. Amount < 0.2%

#### 2. Spin-finish:

Yarns are treated with a spin-finish; typical content 0.6% - 1.2% of the yarn weight depending on type and dtex. Typical composition: lubricants, emulsifiers and anti-electrostatics.

No dangerous ingredients according to Regulation (EC) No. 1272/2008.

## 4. First aid measures

### 4.1. Description of first aid measures

Inhalation:	Not specifically concerned
Skin contact:	Not specifically concerned. Traces of spin-finish may be washed away with water. In case of fire, the molten product may cause burns. Rinse with plenty of water. Do not attempt to remove clothes (danger of adherence to the skin). Call for a physician
Eye contact:	Not specifically concerned.
Ingestion:	Not specifically concerned

### 4.2. Most important symptoms and effects, both acute and delayed

 not know

### 4.3. Indication of any immediate medical attention and special treatment needed

In case of contact with melted product or vapours, get immediately medical attention.

## 5. Firefighting measures

### 5.1. Extinguishing media

Suitable:	All usual extinguishing media may be used (spray water, foam, carbon dioxide, chemical powder).
Unsuitable:	No restrictions

### 5.2. Special hazards arising from the substances or mixture

In case of fire can be released

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Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)  
Hydrogen cyanide (HCN)  
Nitrogen oxides (NO<sub>x</sub>)  
Under certain fire conditions, traces of other toxic gases cannot be excluded.

### **5.3. Advice for firefighters**

Use autonomous respirators, integral gas mask with polyvalent filter, gloves, boots, overall, to fight fire indoor or in poorly ventilated areas. Do not use water as extinguishing agent in the presence of uninterrupted electrical installations. Move away no-protected and no-authorized people.

## **6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

6.1.1. For non-emergency personnel:

Move away no-protected and no-authorized person

6.1.2. For emergency responders:

Wear protective gloves, safety goggles, waterproof boots or shoes

### **6.2. Environmental precautions**

The product is not associated with ecological problems. No risks to the environment. Stop the leakage and isolate the area.

### **6.3. Methods and material for containment and cleaning up**

No special safety risks. Collect material for controlled re-use or waste disposal.

### **6.4. Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## **7. Handling and storage**

### **7.1. Precaution for safe handling**

## Trade name: Polyamide 6 (PA6) Filament Yarns

Store in cool, dry place in tightly closed containers.  
Handle the product away from heat source or flames.  
Melted product avoid breathing vapours; operate under suction  
Prevent formation of dust. Any deposit of dust which cannot be avoided must be removed regularly.

### 7.2. Conditions for safe storage, including any incompatibilities

Consider technical advises referring to optimal process ability.  
The packages must be kept closed until utilization, particularly when the product is dry, because it absorbs humidity from air.  
Store away from the direct rays of the sun in the room with a proper ventilation. Remove dust, ventilation and vacuum cleaning.  
Keep away from ignition sources. Beware of static electricity. The product is packed upon delivery in suitable packaging material which may be recycled.

### 7.3. Specific end use No data available

## 8. Exposure controls / personal protection

### 8.1. Control parameters

Contains no substances with occupational exposure limit values

### 8.2. Exposure controls

#### Personal protective equipment

#### a) General protective and hygienic measures

Wash hands during breaks and at the end of the work.  
Avoid skin contact with the liquefied material.  
Do not inhale dust / smoke / mist.  
Avoid close or long term contact with the skin.

#### b) Body protection: Protective work clothing

#### c) Protection of hands: Protective gloves

#### d) Eye protection: Safety glasses

#### e) Breathing equipment: Use breathing protection in case of insufficient ventilation.

## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

## Trade name: Polyamide 6 (PA6) Filament Yarns

(a)	Appearance:	Form	solid, yarn
		Colour	raw white (nature)
(b)	Odour:		odourless
(c)	Odour threshold:		not applicable
(d)	pH:		not applicable insoluble product
(e)	Melting point/freezing point		220°C
(f)	Initial boiling point and boiling point		not applicable
(g)	Flash point:		> 400 °C closed cup
(h)	Evaporation rate:		not applicable
(i)	Self-in flammability (solid):		product is not self-igniting
(j)	Upper/lower flammability or explosive limits:		no data available
(k)	Vapour pressure:		not applicable
(l)	Vapour density		not applicable
(m)	Relative density		1,14 g/m <sup>3</sup>
(n)	Solubility (ies):		non soluble in water, soluble in formic acid and phenol
(o)	Partition coefficient: n-octanol/water		not applicable
(p)	Decomposition temperature:		Starts at about 350 °C
(q)	Density		1,14 g/cm <sup>3</sup>
(r)	Viscosity index (HCOOH)		120-200
(s)	Explosive properties		non explosive
(t)	Oxidising properties		not oxidizer

**9.2. Other information** not available

### 10. Stability and reactivity

**10.1. Reactivity** No data available

**10.2. Chemical stability**

Stable under normal conditions.

Decomposition happens at 350°C. The substance may release oxides of carbon and hydrogen cyanide.

**10.3. Possibility of hazardous reaction**

No dangerous reaction known under conditions of normal use at temperature 350 °C the product decompose.

**10.4. Conditions to avoid** No further relevant information available

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**10.5. Incompatible materials**                      No data available

**10.6. Hazardous decomposition products**                      CO<sub>2</sub>, CO, NO<sub>x</sub>, HCN

**11. Toxicological information**

**11.1. Information on toxicological effects**

- |     |                                    |  |
|-----|------------------------------------|--|
| (a) | Acute toxicity:                    | None under normal usage.   |
| (b) | Skin corrosion/irritation:         | Spin-finish on the yarn may cause skin irritation at long-term contact. Contact with melted product can cause burns. |
| (c) | Serious eye damage / irritation:   | Not classified as irritating to eyes.  |
| (d) | Respiratory or skin sensitization: | No information available.  |
| (e) | Germ cell mutagenicity:            | No information available.  |
| f)  | Carcinogenicity:                   | No information available.  |
| (g) | Reproductive toxicity:             | No information available.  |
| (h) | STOT-single exposure:              | No data available  |
| (i) | STOT repeated exposure:            | No data available.   |
| (j) | Aspiration hazard:                 | No hazard.   |

**12. Ecological information**

**12.1. Toxicity**

The product is not associated with ecological problems. The information came from the structure. For aquatic organism the product may be non-toxic. In water is not soluble.

**12.2. Persistence and degradability**

The product in yarn form is inert and not biodegradable. In water is not soluble, but can be separate by appropriate mechanical waste water treatment.

**12.3. Bio accumulative potential**                      No further relevant information available.

**12.4. Mobility in soil**                      No further relevant information available

**12.5. Results of PBT and vPvB assessment**                      No further relevant information available



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### 12.6. Other adverse effects

No further relevant information available

## 13. Disposal considerations

### 13.1. Waste treatment methods

#### Product Disposal

Recycle the material as far as possible

Can be disposed of as solid waste or burned in suitable installations, subject to local regulations.

Recycling or thermal recycling is recommended for both – the product and packaging material.

#### Advice on cleaning and disposal of packaging

Dispose of in accordance with local regulations

## 14. Transport information

There is no need of labelling the product according to EC directive 67/548, 1999/45, 1907/2006 since is not classified as hazardous.

### 14.1. UN number

not classified as danger product, according to transport regulation.

### 14.2. UN proper shipping name

#### ADR, ADN, IMDG, IATA

not classified as danger product, according to transport regulation.

### 14.3. Transport hazard class (es)

#### ADR, ADN, IMDG, IATA

not classified as danger product, according to transport regulation.

### 14.4. Packing group

#### ADR, IMDG, IATA

not classified as danger product, according to transport regulation.

### 14.5. Environmental hazards: Terrestrial, see, air transport

Class RID/ADR

not classified as hazardous material

Class ICAO/IATA

not classified as hazardous material

Class OMI/IMDG

not classified as hazardous material

### 14.6. Special precautions for user

No applicable

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**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Classified as no danger product according to transports regulation.

### **15. Regulatory information**

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

Regulation EC 1907/2006  
Regulation EC 1272/2008  
Regulation EC 453/2010

#### **15.2. Chemical safety assessment**

Product is exempted of registration under EC 1907/2006 regulation, not classified as hazardous according to EC 1272/2008 regulation, product not needs a chemical safety assessment

### **16. Other information**

**The information contained herein is based on our present knowledge.**

This Safety Data Sheet is intended to inform about physical properties, safety aspects, toxicological data and ecological characteristics that are relevant for the use of synthetic yarns for technical and industrial applications, and to recommend procedures for their handling, storage and transport. This Safety Data Sheet is a complement to Technical Data Sheets but does not replace them. The information given is to the best of our knowledge at the date of issue. It does not constitute a contractual description of product properties. It is not meant to be handed out to private end-users. The Safety Data Sheet does not disengage the user of his duty to know and to apply any law and regulation that may be relevant.

Product is not classified as hazardous. Annex with exposure scenario is not foresee, because the use of the product is safe