

Safety Data Sheet

SECTION 1: Identification of the Product and the Company

1.1. Product identifier

Trade name: 1.75mm PA12 filament
2.85mm PA12 filament
3.00mm PA12 filament

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

Relevant identified uses of the substance or mixture

Use: Thermal processing during 3D printing.

1.3. Details of the supplier of the safety data sheet

Manufacturer: Devil Design Ryszka Mateja Sp. J.
ul. Żwirki i Wigury 65
43-190 Mikołów, Poland
Tax ID: 6351837318
E-mail: office@devildesign.com

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

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

Not classified as a dangerous substance or mixture.

2.2. Label elements

Labelling according to Regulation EC No. 1272/2008

No labelling required.

2.3. Other hazards

Choking risk. Inhalation of gases and vapours generated during processing is irritating to the respiratory system. Gases and vapours generated during processing are irritating to the skin and eyes. The skin may be burnt by the substance/mixture when hot.

SECTION 3: Composition and Information on Ingredients

3.2. Mixtures

Composition:	Polydodecane-12-lactame
Chemical name:	Polydodecane-12-lactame
Common name:	PA 12, Nylon 12
Type of plastic:	Polyamide

SECTION 4: First Aid Measures

4.1. Description of first aid measures

General information: No special measures are required.

Skin: After contact with the molten product, immediately rinse the area of contact with plenty of water for at least 15 minutes. Consult a doctor. Do not peel solidified product from the skin.

Eyes: Rinse the eyes with plenty of water for at least 15 minutes. Consult a doctor.

Inhalation: Expose to fresh air. Immediately consult a doctor. Immediately consult a doctor.

Ingestion: Immediately consult a doctor.

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

The skin may be burnt by the substance when hot.

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

In case of any alarming symptom or accident, immediately consult a doctor.

SECTION 5: Firefighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray
Foam
Carbon dioxide (CO₂)
Dry powder

Unsuitable extinguishing media:

Powerful pressurised water stream

5.2. Special hazards arising from the substance or mixture

Hazards combustion hazards:

Carbon oxide (CO)
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)
Organic decomposition products

Other toxic combustion products may occur.

5.3. Advice for firefighters

Personal safety equipment for firefighters:

Self-contained breathing apparatus
Personal safety equipment

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment:

Use personal respiratory protection equipment during exposure to gases, dust and vapours.
Use personal safety equipment (see SECTION 8). Provide ventilation.

Emergency procedures:

Remove the source of ignition. Avoid contact with skin and eyes. Avoid inhalation of gases, dust and vapours.

6.1.2. For emergency personnel

Use personal respiratory protection equipment during exposure to gases, dust and vapours.
Personal safety equipment (see SECTION 8).

6.2. Environmental precautions

Do not allow the product to reach sewerage systems or surface and ground waters.

6.3. Methods and material for containment and cleaning up

Remove mechanically.

6.4. Reference to other sections

Personal safety equipment – see SECTION 8.
Waste disposal – see SECTION 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Handling of the substance or preparation:

The product should be processed in a well ventilated environment. If required, an air exhaust should be installed. Avoid dust formation when dust and air may form an explosive mixture. Prevent electrostatic discharge near the product.

General workplace health and safety rules:

Do not eat or drink when working with the product, do not smoke in the workplace. Wash your hands after contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical equipment and storage conditions:

Store the product in a dry, dark and well ventilated room, at ambient temperature.
Due to quality reasons, protect the product against moisture, dust and contamination.

Storage with other substances/preparations:

See SECTION 10.4.

No specific rules have been issued for the storage of the product with other substances/preparations.

7.3. Specific end use(s)

Unknown.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

DNEL/DMEL values: Data lacking.
PNEC values: Data lacking.

8.2. Exposure controls

General protection rules: The product should be processed in a well ventilated room; If required, an air exhaust should be additionally installed. Avoid dust formation. Do not eat or drink when working with the product. Wash your hands after using the product.

Eyes and face: Wear protective goggles.

Hands: Wear heat protective gloves during thermal processing.

Respiratory: In case of exposure to dust or vapours, use respiratory protection with anti-dust filter.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic Physical and Chemical Properties

Physical form:	Solid
Appearance:	Round wire
Colour:	Milky
Odour:	Odourless
Odour threshold:	Not determined
pH value:	Not applicable
Melting point:	165-190°C
Boiling point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	Non-combustible
Upper/lower flammability limit:	Data lacking
Vapour pressure:	Not applicable
Vapour density:	Not applicable

Relative density:	1.0-1.2 (at 20°C)
Water solubility:	Insoluble
Solubility in other liquids:	Data lacking
n-octanol/water partition coefficient:	Not applicable
Self-ignition point:	>350°C
Thermal decomposition:	>300°C
Viscosity:	Data lacking
Explosive properties:	When mixed with air, dust may form an explosive mixture
Oxidising properties:	Product not classified as oxidising

9.2. Other information

Surface tension:	Data lacking
Thermal conductivity:	Data lacking
Electrical conductivity:	Data lacking
Peroxides	Not classified as an organic peroxide
Metal corrosion	Not corrosive

SECTION 10: Stability and Reactivity

10.1. Reactivity

Stable

10.2. Chemical stability

The product remains stable under recommended storage conditions. See SECTION 7.2.

10.3. Possibility of hazardous reactions

Contact of hot alloy with water produces steam.

10.4. Conditions to avoid

Electrostatic discharge. Working with the product in poorly ventilated rooms.

10.5. Incompatible materials

Unknown.

10.6. Hazardous decompositions products

During combustion: see SECTION 5.2.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity: Data lacking

Skin irritation: May be irritating to the skin.

Eye irritation: May be irritating to the eyes.

Sensitisation: Data lacking

Mutagenicity: Data lacking

SECTION 12: Ecological information

12.1. Toxicity

Effect on living organisms: Data lacking

12.2. Persistence and degradability

Data lacking

12.3. Bioaccumulative potential

Data lacking

12.4. 12.4. Mobility in soil

Data lacking.

12.5. Results of PBT and vPvB assessment

Data lacking because/or no CSR report is required.

12.6. Other adverse effects

See: SECTIONS 6.2. and 2.3.

SECTION 13: Disposal Considerations

13.1. Waste treatment effects

Do not discharge waste to sewerage systems. Dispose of waste in accordance with locally applicable regulations. If possible, recycle the product. The same applies to packaging.

SECTION 14: Transport Information

Sections 14.1. to 14.5.

IMDG:	Data lacking
ICAO\IATA:	Data lacking
ADR\RID:	Data lacking

14.6. Special precautions for user

See SECTIONS 6, 7 and 8.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No bulk transport according to the IBC code. The information is based on specific properties of the mixture's ingredient(s).

SECTION 15: Regulatory Information

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

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15.1. Chemical safety assessment

Not determined

Devil Design Ryszka Mateja Sp. J.
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SECTION 16: Other Information

Prepared by: Devil Design Ryszka Mateja Sp. J.

Last revision date: --/--/----

