



## SECTION 1: Product and producer identification

### 1.1. Product ID :

Trade name: Filament PLA SILK 1.75 mm  
Filament PLA SILK 2.85 mm

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

Identified uses: Filament used in 3D printers.

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

**MAH:** NEBULA FILAMENTS Ryszard Bieda  
**Address:** Stare Bystre 356, 34-407 Stare Bystre, Poland  
**Phone:** +48 600 227 702  
**email:** info@nebulafilaments.com

### 1.4. Emergency telephone number

112 ( emergency phone),  
998 (fire brigade),  
999 (ambulance )

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The product is not classified as hazardous to human health and life and to the environment.

### 2.2. Label elements

Hazard pictograms and signal word - None.  
Hazard statements - None.  
Precautionary statements - None.

### 2.3. Other dangers

There is a risk of ingestion. Inhalation produced during processing gas and vapor causes irritation system with tract. Process gases and vapors are irritating to the skin and eyes.

## SECTION 3: Composition and information on ingredients

### 3.1. Substances



### 3.2. Mixtures

Product based on polylactide [CAS 26100-51- 6]. The product does not contain components classified as hazardous, or those for which the values of the occupational exposure limits have been established at the EU level.

## SECTION 4: First Aid Measures

### 4.1. Description of first aid measures

**General information:** No emergency measures are necessary

**Skin contact:** In case of contact with the molten product - immediately rinse the area of contact with plenty of water for at least 15 minutes. Contact a doctor immediately.

**Contact with eyes:** Rinse eyes with copious amounts of water for at least 15 minutes. Contact a doctor immediately.

**Inhalation exposure:** Get in touch with fresh air. Contact immediately doctor.

**Ingestion:** If ingested, do not induce vomiting. Contact a doctor immediately.

### 4.2. The most important acute and delayed symptoms and effects of exposure

There are no known significant effects or critical hazards with correct use of the product. Long-term inhalation of fumes generated in the printing process may cause headaches, poor concentration and fatigue.

### 4.3 Indication of immediate medical aid and special treatment of the injured.

The decision on how to proceed with the rescue is made by the doctor after careful assessment of the victim's condition. Symptomatic treatment.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide, dry chemical, foam, water spray .

Unsuitable extinguishing media : direct stream of water – danger fire spreading.

### 5.2. Special hazards related to the substance or mixture

During combustion may form toxic gases containing, inter alia, carbon dioxide and other harmful products of thermal degradation. Avoid inhalation of combustion products, they may be hazardous to health.

### 5.3. Information for firefighters

General protection measures typical in case of fire. Do not stay in the fire-endangered area without appropriate chemical-resistant clothing and self-contained breathing



apparatus. Do not allow used extinguishing media to enter the sewage system, surface and ground waters.

## SECTION 6: Proceeding in case of unintentional release to the environment

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

#### 6.1.1. For non-emergency personnel Protective equipment:

Use individual respiratory protection measures when exposed to gases and vapors. Use personal protection measures (see: SECTION 8).

Procedures situations emergency: Remove the source of ignition. Avoid contact with skin and eyes. Avoid breathing gases and vapors.

#### 6.1.2. For people giving help

Use individual respiratory protection measures when exposed to gases and vapors.

**Personal protection equipment (see SECTION 8).**

### 6.2. Environmental precautions

Do not allow to enter sewers and water surface and groundwater.

### 6.3. Methods and materials preventing the spread of contamination and used for removing contamination.

Remove mechanically.

### 6.4. Reference to other sections

**Personal protection equipment – see SECTION 8.**

**Disposal considerations – see SECTION 13.**

## SECTION 7: Handling and storage of substances and mixtures

### 7.1. Precautions for safe handling

Work in accordance with the safety and hygiene rules. Use the product as intended. In the event of rubbing or rubbing, electrostatic charges may build up on the surface of the filament, which may be transferred to the user. The accumulated load may be a source of ignition – be especially careful when working with flammable materials.

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

Store the filament in a dry and cool room, protected against weather conditions (solar radiation, frost, precipitation, etc.). Keep away from sources of fire and open flames. Do not store with incompatible materials (see subsection 10.5).



### 7.3 Specific end use (s)

No information available on uses other than those mentioned in subsection 1.2.

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

For the components of the mixture, the occupational exposure limits have not been established. Legal basis: (Journal of Laws of 2014, item 817, as amended). Consolidated text: (Journal of Laws 2018, item 1286).

### 8.2. Exposure controls

Observe the general rules of safety and hygiene. Do not eat, drink or smoke while working. Wash hands thoroughly before breaks and after work.

Hand and body protection : Not required.

Eye protection: Use tightening safety glasses if a risk assessment indicates this is necessary.

Respiratory protection: Not required.

In emergency situations, appropriate respiratory protection equipment shall be used when exposed to high concentrations of fumes arising from the printing process.

The personal protective equipment used must meet the requirements of the Ordinance of the Ministry of Economy of December 21, 2005 (Journal of Laws No. 259, item 2173) and the ordinance 2016/425 / EU (with subsequent amendments). The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning.

Environmental exposure controls

Do not allow large amounts of the product to enter groundwater, sewage system, sewage or soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

physical state / form:	solid / Filament
color:	according to the assortment
smell:	no smell
armpit threshold :	not marked
pH value :	not applicable



temp melting / freezing point:	not marked
initial boiling point:	not marked
flash-point:	not applicable, the product is not flammable
evaporation rate:	not applicable
flammability (solid, gas):	it is not flammable
upper / lower explosion limit:	not marked
vapor pressure:	not applicable
vapor density:	not applicable
density:	1,05
solubility:	does not dissolve in water
partition coefficient: n - octanol / water	not marked
temperature of self-ignition:	not marked
decomposition temperature:	not marked
explosive properties:	not marked
oxidizing properties:	not marked
viscosity:	not applicable
surface tension :	No data
thermal conductivity:	Not marked
conductivity:	Not marked

There is no danger of an explosion.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Data not available. See SECTION 10.3.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of recommended use.

### 10.4. Conditions to Avoid

The temperature above 230 °C conduct electricity. Working with the product ws wit poorly ventilated areas. Temperatures above desired above the thermal distributions wit composition masterbatchu.

### 10.5. Incompatible materials

Oxidizing agents and strong bases.

## 10.6. Hazardous decomposition products

Burning produces aldehydes, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity:

Based on the available data, the classification criteria are not met.

#### Corrosive / irritating effect on the skin:

Based on the available data, the classification criteria are not met.

#### Serious eye damage / eye irritation:

Based on the available data, the classification criteria are not met.

#### Respiratory or skin sensitization:

Based on the available data, the classification criteria are not met.

#### Mutagenic effect on reproductive cells:

Based on the available data, the classification criteria are not met.

#### Carcinogenic effect:

Based on the available data, the classification criteria are not met.

#### Harmful effect on reproduction:

Based on the available data, the classification criteria are not met.

**Toxic effect on target organs:** thrust on available data, the classification criteria are not met.

**Toxic effects on target organs:** repeated exposure Based on the available data, the classification criteria are not met.

**Aspiration hazard:** Based on the available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Effect on living organisms:** No data available

**12.2. Persistence and degradability:** The product is fully biodegradable.

**12.3. Bioaccumulative potential:** The product is not bioaccumulative.

**12.4. Mobility in soil:** No data.

### 12.5. Results of PBT and vPvB assessment

According to the assessment results, the substance is neither a PBT nor a vPvB, the mixture does not contain any substances assessed as PBT or vPvB or a chemical safety report (CSR) is not required.



## 12.6. Other harmful effects

The product does not contribute to global warming.

## SECTION 13: Disposal considerations

### 13.1. Waste neutralization methods

The waste material should be stored in a designated place for recycling or destruction.

The waste product should be recovered or disposed of in authorized incineration plants or waste disposal plants, in accordance with applicable regulations.

EU legal acts: Directives of the European Parliament and of the Council: 2008/98 / EC and 94/62 / EC.

National legal acts: (Journal of Laws 2013, item 21, as amended). Uniform text: (Journal of Laws 2018, item 21). (Journal of Laws 2013, item 888, as amended). Uniform text: (Journal of Laws 2018, item 150).

## SECTION 14: Transport information

**14.1 UN number** – Not applicable, the product is not classified as dangerous during transport.

**14.2 UN proper shipping name** – Not applicable.

**14.3 Transport hazard class (es)** – Not applicable.

**14.4 Packing group** – Not applicable.

**14.5 Environmental hazards** – Not applicable.

**14.6 Special precautions for user** – Not applicable.

**14.7 Transport in bulk according to Annex II to MARPOL and the IBC Code** – Not applicable.

## SECTION 15: Regulatory information

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

– Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws No. 63, item 322, as amended). Uniform text: (Journal of Laws 2018 item 143).

– Minister of Labor and Social Policy of 6 June 2014. On maximum permissible concentration and intensity of harmful factors in the work environment (Dz. U. 2014, pos. 817, along with later . D.). Uniform text: (Journal of Laws 2 018 item 1286).



- Waste Act of December 14, 2012 (Journal of Laws 2013, item 21, as amended). Uniform text: (Journal of Laws 2018, item 21).
- The Law of 13 June 2013. On packaging and waste packaging (Dz. U. 2013, pos. 888 in one of the later . D.). Uniform text: (Journal of Laws 2018, item 150).
- Regulation of the Minister of Environment of 9 December 2014 on the waste catalog (Journal of Laws of 2014, item 1923). Regulation of the Minister of Economy of December 21, 2005 on the essential requirements for personal protective equipment (Journal of Laws No. 259, item 2173).
- Regulation of the Minister of Health of February 2, 2011 on tests and measurements of factors harmful to health in the work environment (Journal of Laws No. 33, item 166).
- European ADR agreement on the international carriage of dangerous goods by road. 1907/2006 / EC Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No. 793/93 and No. 1488 / 94 as well as the Council Directive 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC as amended . d.
- 272/2008 / EC Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC, and amending Regulation (EC) No. 1907/2006 and subsequent amendments . d.
- 2015/830 / EU Commission Regulation of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
- 2008/98 / EC Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain directives.
- 94/62 / EC Directive of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste.
- 2016/425 / EU Regulation of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686 / EEC.

## 15.2. Chemical safety assessment

The product has not been classified as harmful in accordance with EU regulation 1272/2008 and directive 67 / 548EEC. No Chemical Safety Assessment (CSA) is available for the substances or ingredients described until the last update.



## SECTION 16: Other information

### Training

Before starting work with the product, the user should familiarize himself with the health and safety rules at the workplace where the product will be used.

### References to key literature and data sources

The card was developed on the basis of data provided by the manufacturer, literature data, internet databases as well as the possessed knowledge and experience, taking into account the current legal regulations.

### Document prepared by:

NEBULA FILAMENTS

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