

PA-12

UPDATE: 1.09.2020

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

1.1. Product identifier Trade name: Filament PA-12 1,75mm; Filament PA-12 2,85m

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

1.2.1. Relevant identified uses Thermal processing: FDM/FFF

1.2.2. Uses advised against No data.

1.3. Company

Producent/Dostawca: Omni3d sp z o.o.
Adres: ul. Św Michała 43 Poznań 61-119
Telefon: 886 618 690
Adres e-mail: sales@omni3d.com

1.4. Emergency telephone number EU-wide emergency number: 112

2. HAZARD IDENTIFICATION

2.1. Classification of the substance/mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Labelling as per Regulation (EU) No. 1272/2008 [CLP]
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other hazards

Risk of skin burns caused by hot melt. Dust can occur through abrasion if the granulate is subjected to mechanical loading. A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical nature: moulding compound on the base: polyamide.
Other information: this sheet describes a group of products. It only contains safety-relevant data.



3.2. Mixtures

Not applicable.

4. FIRST AID MEASURES

4.1. Description of first aid measures

General Information

First aider needs to protect himself. Remove from exposure, lie down. Do not leave the victim unattended.

Inhalation

In case of symptoms of irritation caused by vapours in thermal processing: Provide fresh air, seek medical advice if necessary. If breathed in, move person into fresh air.

Skin contact

Cool melted product on skin with plenty of water. Do not remove solidified product. Consult a physician.

Eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. If eye irritation persists, consult a specialist.

Ingestion

Seek medical advice.

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

Symptoms – product dust may be irritating to eyes, skin and respiratory system.

Hazards – risk of skin burns caused by hot product.

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

Continue with first aid measures. Depending on the pathology and clinical findings, patient monitoring and symptomatic treatment are necessary.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media – water spray jet, foam, carbon dioxide (CO₂), dry powder.

Unsuitable extinguishing media – high volume water jet.

5.2. Special hazards arising from the substance or mixture

May be released in case of fire: carbon monoxide, carbon dioxide, nitric oxides, organic products of decomposition. Under certain fire conditions, traces of other toxic products may occur.

5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing dust. Ventilate the area.



6.2. Environmental precautions

Should not be released into the environment. Try to prevent the material from entering drains or water courses.

6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

6.4. Reference to other sections

Wear personal protective equipment; see section 8

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid dust formation. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Protect from moisture. Avoid exceeding the given occupational exposure limits (see section 8). In thermal processing: risk of skin burns

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion

Take precautionary measures against static discharges. During processing, dust may form explosive mixture in air.

Storage

Keep container tightly closed in a dry and well-ventilated place. Avoid moisture.

Advice on common storage

Keep away from food, drink and animal feeding stuffs. Observe prohibition against storing together!

German storage class

11 - Combustible Solids

Storage stability

Stable under recommended storage conditions.

7.3. Specific end use(s)

We are unaware of any specific end uses which go beyond the data reported in Section 1.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

No data.

8.2. Exposure controls

Engineering measures

In case of thermal processing, provide for extraction of the vapours or adequate ventilation. Avoid dust formation. Dust must be extracted directly at the point of origin.

Personal protective equipment

Respiratory protection – do not breathe dust. In the case of dust or aerosol formation use respirator with an approved filter. Note time limit for wearing respiratory protective equipment. In the case of vapour formation use a respirator with an approved filter. Respirator with filter for organic vapour Note time limit for wearing respiratory protective equipment.

Hand protection - the wearing of protective gloves is not required if the granulate in question is handled at room temperature. Any areas of skin covered with dust must be washed immediately with soap and water as the powder draws out natural moisture from the skin. Use barrier cream regularly. Protective heat-insulating gloves are to be used during thermal processing.

Eye protection - safety glasses

Hygiene measures

Wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance form Physical state	fiber (filament) solid
Odour	odourless
Odour threshold	not determined; not required by safety or application considerations
pH	not applicable
Melting point/range	165 – 190 °C
Boiling point/range	not applicable; decomposition
Flash point	not applicable
Evaporation rate	not applicable
Flammability (solid, gas)	the product is not flammable
Lower explosion limit	see Explosiveness
Upper explosion limit	see Explosiveness
Vapour pressure	not applicable
Vapour density	not applicable
Relative density	1,0 – 1,2 (20°C)
Water solubility	insoluble
Partition coefficient n-octanol/water	no data available; not required by safety or application considerations
<u>Autoinflammability</u>	the substance or mixture is not classified as pyrophoric; the substance or mixture is not classified as self heating
Thermal decomposition	> 300°C
Viscosity, dynamic	no data available; not required by safety or application considerations
Viscosity, kinematic	no data available; not required by safety or application considerations
Explosiveness	not explosive; dust might form explosive mixtures with air.
Oxidizing properties	the substance or mixture is not classified as oxidizing

9.2. Other information

Formation of flammable gases the substance or mixture does not emit flammable gases in contact with water.

Ignition temperature > 350°C

Peroxides the substance or mixture is not classified as organic peroxide Metal corrosion not corrosive to metals

10. Stability and reactivity

10.1. Reactivity

Under normal conditions: stable.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Do not bring hot smelter into contact with water (steam formation).

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Decomposition products on thermal decomposition: carbon monoxide, carbon dioxide, nitrogen oxides, organic products of decomposition.

11. TOXICOLOGICAL INFORMATION

11.1. Acute toxicity

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.2. Skin corrosion/irritation

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.3. Eye corrosion/irritation

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.4. Respiratory sensitization

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.5. Skin sensitization

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".



11.6. Mutagenicity

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.7. Carcinogenicity

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.8. Reproductive toxicity

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.9. Specific target organ toxicity (single exposure)

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.10. Specific target organ toxicity (repeated exposure)

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

11.11. Aspiration hazard

The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish see item 12.6.

12.2. Persistence and degradability

Further information see item 12.6.

12.3. Bioaccumulative potential

Bioaccumulation see item 12.6.

12.4. Mobility in soil

Mobility see item 12.6.

12.5. Results of PBT and vPvB assessment

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

12.6. Other adverse effects

The properties of this product which are characteristics posing a threat to the environment have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Where possible recycling is preferred to disposal or incineration. Can be landfilled or incinerated, when in compliance with local regulations. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

14. TRANSPORT INFORMATION

14.1. Un number

No data.

14.2. UN proper shipping name

No data.

14.3. Transport hazard class(es)

No data.

14.4. Packing group

No data.

14.5. Environmental hazard

No data.

14.6. Special precautions for user

No data.

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

No data.

15. REGULATORY INFORMATION

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

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Listing: not applicable

15.2. Chemical safety assessment

Chemical safety assessment no required.



15.2. Chemical safety assessment

Registration

USA (TSCA) listed/registered
 Canada (DSL) listed/registered
 Australia (AICS) listed/registered
 Japan (MITI) listed/registered
 Korea (KECI) listed/registered
 Philippines (PICCS) listed/registered
 China listed/registered
 New Zealand listed/registered
 Taiwan listed/registered

16. OTHER INFORMATION

16.1. Indication of changes

Not determined

16.2. Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
	German Ordinance on Industrial Safety and Health
c.c.	closed cup
CAS	Chemical Abstract Services
CESIO	European Committee of Organic Surfactants and their Intermediates
ChemG	German Chemicals Act
CMR	carcinogenic-mutagenic-toxic for reproduction
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
EC50	half maximal effective concentration
GefStoffV	German Ordinance on Hazardous Substances
GGVSEB	German ordinance for road, rail and inland waterway transportation of dangerous goods
GGVSee	German ordinance for sea transportation of dangerous goods
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
IATA	International Air Transport Association 

ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
ISO	International Organization For Standardization
LOAEL	Lowest observed adverse effect level
LOEL	Lowest observed effect level
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
REACH	REACH registration
RID	Convention concerning International Carriage by Rail
STOT	Specific Target Organ Toxicity
SVHC	Substances of Very High Concern
TA	Technical Instructions
TPR	Third Party Representative (Art. 4)
TRGS	Technical Rules for Hazardous Substances
VCI	German chemical industry association
vPvB	very persistent, very bioaccumulative
VOC	volatile organic compounds
VwVwS	German Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes
WGK	Water Hazard Class
WHO	World Health Organization

16.3. Key literature references and sources for data

The product safety data sheet has been prepared based on the documentation provided by the manufacturer of the granulate from which the filament product was made.

16.4. Relevant R phrases and H statements

No data.

16.5. Training advice

No data.

16.6. Further information

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