SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
   PA12 SMOOTH
   Product code: 1.

Further trade names
   UFI (Unique Formula Identifier) A300-F0F5-V004-G71W

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

Use of the substance/mixture
   Powder material for selective laser sintering (SLS) process

Uses advised against
   Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Sinterit Sp. z o. o.
Street: ul. Kalwaryjska 69/9
Place: PL-30-504 Krakow
Telephone: +48 570 697 854
e-mail: contact@sinterit.com
Contact person: K. Glowacki
Responsible Department: E-Mail: contact@sinterit.com
Sinterit sp. z o.o., ul. Kalwaryjska 69/9, 30-504 Krakow, Poland

1.4. Emergency telephone number:
   Poison Information Center Mainz, Germany, Tel: +49 (6131) 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008
   This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling
   Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

2.3. Other hazards

   The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
   No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

   Chemical characterization
   The product does not contain dangerous substances according to REGULATION (EU) No. 2015/830, Annex II, Part A , 3.2.2. that must be mentioned in Chapter 3.

   Further Information
   Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006
Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation
In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin
Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes
Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
After ingestion, no information available.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Carbon dioxide (CO2). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media
High power water jet.

5.2. Special hazards arising from the substance or mixture
Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrogen oxides (NOx).

5.3. Advice for firefighters
In case of fire: Wear self-contained breathing apparatus.

Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid dust formation.
Do not breathe dust.

6.2. Environmental precautions
Discharge into the environment must be avoided.
6.3. Methods and material for containment and cleaning up
Take up mechanically.
Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Wear personal protection equipment (refer to section 8).
Advice on protection against fire and explosion
Usual measures for fire prevention. Dust clouds may present an explosion hazard.
Further information on handling
Avoid generation of dust.
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place.
Hints on joint storage
Further information on storage conditions
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Recommended storage temperature: 20°C
Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)
See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Additional advice on limit values
To date, no national critical limit values exist.

8.2. Exposure controls
Appropriate engineering controls
Technical measures and the application of suitable work processes have priority over personal protection equipment.
Dust should be exhausted directly at the point of origin.

**Protective and hygiene measures**
Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

**Eye/face protection**
Dust protection goggles.

**Hand protection**
In case of prolonged or frequently repeated skin contact:
Wear suitable gloves.
Suitable material:
- FKM (fluororubber). - Thickness of glove material: 0.4 mm
  Breakthrough time >= 8 h
- Butyl rubber. - Thickness of glove material: 0.5 mm
  Breakthrough time >= 8 h
- CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0.5 mm
  Breakthrough time >= 8 h
- NBR (Nitrile rubber). - Thickness of glove material: 0.35 mm
  Breakthrough time >= 8 h
- PVC (Polyvinyl chloride). - Thickness of glove material: 0.5 mm
  Breakthrough time >= 8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.
Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**
Suitable protective clothing: Protective clothing.
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

**Respiratory protection**
With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
- Exceeding exposure limit values
- Insufficient ventilation. and Generation/formation of dust
Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type: P1-3
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

**Environmental exposure controls**
No special precautionary measures are necessary.

**SECTION 9: Physical and chemical properties**

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

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>navy grey</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
<tr>
<td>pH-Value:</td>
<td>not determined</td>
</tr>
</tbody>
</table>
Changes in the physical state

- Melting point: not determined
- Initial boiling point and boiling range: not determined
- Sublimation point: not determined
- Softening point: not determined
- Pour point: not determined
- Flash point: not determined
- Sustaining combustion: Not sustaining combustion

Explosive properties

Dust clouds may present an explosion hazard.

- Lower explosion limits: not determined
- Upper explosion limits: not determined
- Ignition temperature: not determined

Auto-ignition temperature

- Gas: not determined
- Decomposition temperature: not determined

Oxidizing properties

- Vapour pressure: not determined
- Density: 0,45-0,55 g/cm³
- Bulk density: not determined
- Water solubility: not determined

Solubility in other solvents

- not determined

Partition coefficient: not determined
- Viscosity / dynamic: not determined
- Viscosity / kinematic: not determined
- Flow time: not applicable
- Vapour density: not applicable
- Evaporation rate: not applicable
- Solvent separation test: not applicable
- Solvent content: not determined

9.2. Other information

- Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.
10.3. Possibility of hazardous reactions
   Refer to chapter 10.5.

10.4. Conditions to avoid
   Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials
   Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

10.6. Hazardous decomposition products
   Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
   Toxicokinetics, metabolism and distribution
   No data available.
   Acute toxicity
   Based on available data, the classification criteria are not met.
   Irritation and corrosivity
   Based on available data, the classification criteria are not met.
   Sensitising effects
   Based on available data, the classification criteria are not met.
   Carcinogenic/mutagenic/toxic effects for reproduction
   Based on available data, the classification criteria are not met.
   STOT-single exposure
   Based on available data, the classification criteria are not met.
   STOT-repeated exposure
   Based on available data, the classification criteria are not met.
   Aspiration hazard
   Based on available data, the classification criteria are not met.
   Specific effects in experiment on an animal
   No data available.

SECTION 12: Ecological information

12.1. Toxicity
   The product has not been tested.

12.2. Persistence and degradability
   The product has not been tested.

12.3. Bioaccumulative potential
   No indication of bioaccumulation potential.

12.4. Mobility in soil
   No data available.

12.5. Results of PBT and vPvB assessment
   The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
12.6. Other adverse effects
No data available.

Further information
Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations
Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Control report for waste code/waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products
200139 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Plastics

List of Wastes Code - used product
200139 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Plastics

List of Wastes Code - contaminated packaging
150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Refer to section 6-8

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III) (SEVESO III):

Additional information

Safety Data Sheet according to Regulation (EC) No 1907/2006 (amended by Regulation (EU) No 2020/878)
The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): not relevant

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

SECTION 16: Other information

Changes

Rev. 1.0; Initial release: 23.07.2019

Rev. 1,1; Changes in chapter: 1 , 10.11.2020

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European LIst of Notified Chemical Substances

ECHA: European Chemicals Agency
Further Information
Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
Health hazards: Calculation method.
Environmental hazards: Calculation method.
Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)