1. Identification

Product identifier

PA12 SMOOTH
Product code: 1_

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.

Details of the supplier of the safety data sheet

Company name: Sinterit Sp. z o. o.
Street: Nad Drwina 10 bud. B3
Place: PL-30-741 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., Nad Drwina 10 bud. B3, 30-741 Krakow, Poland

2. Hazard identification

Classification of the substance or mixture

WHMIS 2015

This mixture is not classified as hazardous in accordance with WHMIS 2015.

Label elements

Additional advice on labelling
Label elements GHS: None

Other hazards
No risks worthy of mention. Please observe the information on the safety data sheet at all times.

3. Composition/information on ingredients

Mixtures

Chemical characterization
The product does not contain dangerous substances to be mentioned in Chapter 3.

4. First-aid measures

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.

After ingestion
Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

Most important symptoms and effects, whether acute or delayed
No information available.

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

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Kohlendioxid (CO2). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media
High power water jet.

Specific hazards arising from the hazardous product
Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx).

Special protective equipment and precautions for fire-fighters
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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid dust formation.
Do not breathe dust.
Wear personal protection equipment (refer to section 8).

Environmental precautions
Discharge into the environment must be avoided.

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.

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

7. Handling and storage

Precautions for safe handling
Advice on safe handling
Wear suitable protective clothing. (See 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

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

8. Exposure controls/Personal protection

Control parameters

Additional advice on limit values
Quebec:
TWA: No information available.; STEL/ Ceiling Limit: No information available.
Alberta:
TWA: No information available.; STEL/ Ceiling Limit: No information available.
British Columbia:
TWA: No information available.; STEL/ Ceiling Limit: No information available.
Ontario:
TWA: No information available.; STEL/ Ceiling Limit: No information available.

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 the glove material: 0,4 mm
Breakthrough time => 8 h
Butyl rubber. - Thickness of the glove material: 0,5 mm  
Breakthrough time >= 8 h
CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material: 0,5 mm  
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of the glove material: 0,35 mm  
Breakthrough time >= 8 h
PVC (Polyvinyl chloride). - Thickness of the glove material: 0,5 mm  
Breakthrough time >= 8 h
The selected protective gloves should satisfy the specifications of standards like EN 374.
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: Lab apron.

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: Particulate Respirators, Standard: 42 CFR Part 84 or DIN 143 or 
regional standards like Z94.4.
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.

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state: solid</th>
<th>Colour: dark grey</th>
<th>Odour: characteristic</th>
<th>pH-Value: not determined</th>
</tr>
</thead>
</table>

Changes in the physical state

<table>
<thead>
<tr>
<th>Melting point/freezing point: not determined</th>
<th>Boiling point or initial boiling point and</th>
<th>boiling range: not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sublimation point: not determined</td>
<td>Softening point: not determined</td>
<td>Pour point: not determined</td>
</tr>
<tr>
<td>Flash point: not determined</td>
<td>Sustaining combustion: Not sustaining combustion</td>
<td></td>
</tr>
</tbody>
</table>

Explosive properties

Dust clouds may present an explosion hazard.

| Lower explosive limits: not determined | Upper explosive limits: not determined |
Auto-ignition temperature: not determined

Self-ignition temperature
Gas: not determined
Decomposition temperature: not determined

Oxidizing properties
none

Vapour pressure: not determined
Density: 0.45-0.55 g/cm³
Water solubility: not determined

Solubility in other solvents
not determined

Partition coefficient n-octanol/water: SECTION 12: Ecological information
Viscosity / dynamic: not determined
Viscosity / kinematic: not determined
Flow time: not determined
Relative vapour density: not determined
Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: not determined

Other information
Solid content: not determined

10. Stability and reactivity

Reactivity
No information available.

Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions
Refer to chapter 10.5.

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

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

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

11. Toxicological information

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.

Sensitizing 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.

Name of toxicologically synergistic products
No data available

12. Ecological information

Ecotoxicity
The product has not been tested.

Persistence and degradability
The product has not been tested.

Bioaccumulative potential
No indication of bioaccumulation potential.

Mobility in soil
No data available.

Other adverse effects
No data available.

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

13. Disposal considerations

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.

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

14. Transport information

Canadian TDG
**Proper shipping name:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**
- **UN number:** No dangerous good in sense of this transport regulation.
- **United Nations proper shipping name:** No dangerous good in sense of this transport regulation.
- **Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- **Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**
- **UN number:** No dangerous good in sense of this transport regulation.
- **United Nations proper shipping name:** No dangerous good in sense of this transport regulation.
- **Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- **Packing group:** No dangerous good in sense of this transport regulation.

**Environmental hazards**
- **ENVIRONMENTALLY HAZARDOUS:** No

15. Regulatory information

**Canadian regulations**
- **DSL/NDSL inventory status**
  The main component is a polymer and not listed in DSL/NDSL.
- **National Pollutant Release Inventory (NPRI)**
  Not listed.
- **WHMIS classification**
  No data available

**Provincial regulations**
- No data available

**Additional information**
- This mixture is not classified as hazardous in accordance with WHMIS 2015.

16. Other information

**Changes**
- Rev. 1.0; Initial release: 29.10.2021

**Abbreviations and acronyms**
- ACGIH: American Conference of Governmental Industrial Hygienists
- ATE: acute toxicity estimate
- BCF: Bio concentration factor
- CAS: Chemical Abstracts Service
- d: days
- DSL: Domestic Substance List
- EC50: Half maximal effective concentration
- EN: European Norm
- ECHA: European Chemicals Agency
EPA: Environmental Protection Agency
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
h: hours
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IBC: Intermediate Bulk Container
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LOAE: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
MARPOL: marine pollution
NOAE: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NTP: National Toxicology Program
N/A: not applicable
NDSL: Non-Domestic Substance List
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PBT: Persistent bioaccumulative toxic
RTCS: Registry of Toxic Effects of Chemical Substances
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
SIMDUT: Système d'information sur les matières dangereuses utilisées au travail
STEL: short-term exposure limits
TDG: Transportation of Dangerous Goods
TWA: time weighted average
TWAEV: TIME-WEIGHTED AVERAGE EXPOSURE VALUE
VOC: Volatile Organic Compounds
WHMIS: Workplace Hazardous Materials Information System

Further Information
Classification according WHMIS 2015 (GHS): - 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.)