Sintratec

Safety Data Sheet

Version: 1
Product name: Sintratec TPE
Region: EU
Issue Date: 20.11.2017

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

Product identifier

Trade name Sintratec TPE

Product name Sintratec TPE

Relevant identified uses of the substance or mixture and uses advised against
Laser sintering

Uses advised against
No data available.

Details of the supplier of the safety data sheet

Address

Company name	Sintratec AG
Street	Badenerstrasse 13
Postal Code	5200
City	Brugg
Country	Switzerland
Phone number	+41 56 552 00 22
Mail	info@sintratec.com

Emergency telephone number

+41 56 552 00 22 (Mo – Fr, 9am – 2pm & 13pm – 17pm) (CET)

SECTION 2: Hazards identification

Classification according to regulation (EC) No. 1272/2008 (CLP)

The product is not classified as hazardous to health or environment according to the CLP regulation.

Classification according to regulation 67/548/EG or 1999/45/EG

The product is not classified as hazardous to health or environment according to the EG- regulations 67/548/EWG or 1999/45/EG.

Label elements

Labelling according to Regulation (EC) No. 1272/2008	Void
Hazard pictograms	Void
Signal word	Void
Hazard statements	Void

Additional safety information for humans and the environment

See item 10 + 11

Risk of skin burns caused by hot melt.
Granular: Dust can occur through abrasion if the granulate is subjected to mechanical loading.
Powder: Dusts can form explosive mixtures with air.

Results of PBT and vPvB assessment

PBT: not applicable
vPvB: not applicable

SECTION 3: Composition and information on ingredients

Polyurethane blend in form of powder.
Polymer blend based on: Polyurethane, stabilizers and additives

Composition risks (GHS)

This product does not contain any substance which can be dangerous for the health or the environment, with exposure limits in the working place. It does not contain any persistent bio accumulative or toxic substance nor very persistent or very bio accumulative. The product is under the ECHA-List not mentioned as forbidden substance. The product is in accordance with regulation (CE) Nr. 1272/2008.

SECTION 4: First aid measures

Description of first aid measures

Inhalation
In general: No effects caused.

Recommendation: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion
In general: No evidence of adverse effects.

Recommendation: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact
In general: No adverse effects caused.

Recommendation: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact
In general: Physical elimination in case of product in the eyes.

Recommendation: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Protection of first-aiders
No action shall be taken involving any personal risk or without suitable training.

Notes to physician
No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5: Firefighting measures

Extinguishing media

Water spray, carbon dioxide, foam. Direct large water flows should not be applied. Work against wind direction.
Adequate breathing equipment should be worn. Carbon monoxide is produced by burning.

Special exposure hazards

No specific fire or explosion hazard.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products

Decomposition products may include the following materials: carbon oxides
Under certain fire conditions, traces of other toxic products may occur.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark

Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.

SECTION 6: Accidental release measures

Sweep powder up with mechanical means and dispose of it as a solid, harmless product.

Personal precautions

In case product dust is released: Dust mask

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Large spill
Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill
Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container.
Dispose of via a licensed waste disposal contractor.

SECTION 7: Handling and storage

Handling

Static electricity should be avoided when handling product in solution form. In case of spillage, sweep up, so as to avoid possible risks of slipping. Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

Keep in well-closed containers and at a temperature below 25 °C.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Never stack pallets more than two high to prevent the risk of them falling over.

Packaging materials

Recommended: Use original container.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters

Exposure limit values

No exposure limit value known.

Recommended monitoring
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure controls

Occupational exposure controls
No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection
No respiratory protection requested.

Recommendation: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Recommended: Dust-protection mask P2

Hand protection

No hand protection requested.

Powder:
The wearing of protective gloves is not required if the powder in question is handled at room temperature.
Protective heat-insulating gloves are to be used during thermal processing.

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.

Eye protection
No eye protection requested.

Recommendation: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection
No Skin protection requested.

Recommendation: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

Appearance

Form/physical state	Powder
Colour	Dark Grey
Odeur	Hardly noticeable

Safety data

Ph	not applicable
Melting point/range	> 95 °C (KOFLER) / softening range: >80 °C (KOFLER)
Boiling point/range	not applicable
Flashpoint	> 220°C
Decomposition temperature	> 225°C
Ignition temperature	> 390°C Method: DIN 51974
Explosiveness	Dusts can form explosive mixtures with air.
Vapour pressure	not applicable
Density	1.20 g/cm^3 (20 °C)
Density relative	1.11 – 1.20 g/cm^3 (20 °C)
Water solubility	insoluble
Bulk density	> 400 g/l
Explosive properties (Powder)	Dusts can form explosive mixtures with air. Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.

Further information

Other information	The range of values given complies with the variation range of the product group. The specific physical chemical data can be read in the product information.

SECTION 10: Stability and reactivity

Chemical stability

Stable product, no decomposition occurs, provided storage and handling are correct.

Conditions to avoid
Thermal decomposition: > 225° C

Development of flammable gases/vapours

Dangerous decomposition products
Toxic gases and vapors such as carbon monoxide, carbon dioxide, nitrogen oxide.

SECTION 11: Toxicological information

Assessment of acute toxicity
Virtually nontoxic by inhalation.
Virtually nontoxic after a single skin contact.
Virtually nontoxic after a single ingestion.

Experimental / calculated data: LD50 rat (oral): > 5,000 mg/kg

Inhalation	No adverse effects are cause.
Eye and skin contact	Eye contact may cause irritation. A continued contact with the skin may cause dermatitis.
Ingestion	Effects are similar to those caused by the ingestion of any solid, non hazardous product.

SECTION 12: Ecological information

Toxicity

Aquatic Toxicity	No relevant information available.
Persistency and degrability	No relevant information available.

Behaviour in environmental compartments

Bioaccumulation potential	No relevant information available.
Mobility in ground	No relevant information available.

Further information on ecology

General information	Generally not water pollutant.

Results of PBT- and vPvB- evaluation

PBT	not applicable
vPvB	not applicable

Other harmful effects

No relevant information available.

SECTION 13: Disposal considerations

Product

With respect to local regulations, e.g. dispose of product to suitable waste incineration plant.

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm/producing firm/official authority.

SECTION 14: Transport information

Transport/further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

Labelling according to EC Directives

Statutory basis/list — Not subject to labeling provisions by Directive 67/548/EEC.

National legislation

SECTION 16: Other information

The content and format of this material safety data sheet follows Directive n°91/155/CEE issued by the European Commission.
The mentioned data are in accordance with our present knowledge and no warranty of the properties is made herein.
The receiver of our product is directly liable for the fulfillment corresponding regulations and norms.