

Safety data sheet

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BASF Safety data sheet according to UN GHS 4th rev.

Date / Revised: 27.02.2019

Version: 1.0

Product: **Ultrafuse Z PCTG**

(ID no. 945225/SDS_GEN_00/EN)

Date of print 27.02.2019

1. Identification

Product identifier

Ultrafuse Z PCTG

Recommended use: 3D Printing

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Telephone: +49 621 60-0

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

No need for classification according to GHS criteria for this product.

Label elements

Globally Harmonized System (GHS)

The product does not require a hazard warning label in accordance with GHS criteria.

Other hazards

According to UN GHS criteria

The product may cause burns, if handled in the melted state. The product is under certain conditions capable of dust explosion.

3. Composition/Information on Ingredients

Substances

Not applicable

Mixtures

Chemical nature

Blend based on: Polymer
carbon nanotubes

4. First-Aid Measures

Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air. Immediate medical attention required.

On skin contact:

If irritation develops, seek medical attention. Wash affected areas thoroughly with soap and water. Areas affected by molten material should be quickly placed under cold running water.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Never give anything by mouth to an unconscious person. Do not induce vomiting unless told to by a poison control center or doctor. Find a doctor, immediately. Rinse mouth and then drink 200-300 ml of water.

Most important symptoms and effects, both acute and delayed

Symptoms: (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

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Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
carbon dioxide, water spray, Dry sand

Special hazards arising from the substance or mixture

carbon oxides

Advice for fire-fighters

Special protective equipment:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid contact with skin and eyes. Avoid dust formation. Avoid all sources of ignition: heat, sparks, open flame.

Environmental precautions

No special precautions necessary.

Methods and material for containment and cleaning up

Clean up promptly. Sweep up or vacuum small pieces and dusts and place in appropriate container for disposal.

7. Handling and Storage

Precautions for safe handling

Wear suitable personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. Provide suitable exhaust ventilation at drying process and in the surrounding of processing machines.

Protection against fire and explosion:

Avoid whirling up the material/product because of the danger of dust explosion.

Conditions for safe storage, including any incompatibilities

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Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Paper/Fibreboard

Further information on storage conditions: Frost sensitive Avoid deposition of dust. Keep away from heat.

8. Exposure Controls/Personal Protection

Control parameters

Components with occupational exposure limits

No occupational exposure limits known.

Exposure controls

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. In situations where dust may occur use appropriate certified respirators.

Hand protection:

Wear gloves to prevent contact during mechanical processing and/or hot melt conditions.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Wear suitable protective clothing.

General safety and hygiene measures

Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions.
Avoid contact with skin and eyes.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	filament
Colour:	black
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
pH value:	not applicable
Melting point:	No data available.
Boiling point:	No data available.

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Flash point:	not applicable, the product is a solid
Evaporation rate:	The product is a non-volatile solid.
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.
Ignition temperature:	No data available.
Vapour pressure:	not determined
Density:	1,23 - 1,27 g/cm ³
Relative vapour density (air):	not determined
Solubility in water:	insoluble
Partitioning coefficient n-octanol/water (log K _{ow}):	not applicable for mixtures
Self ignition:	Based on its structural properties the product is not classified as self-igniting.
Thermal decomposition:	No data available.
Viscosity, dynamic:	not applicable, the product is a solid
Explosion hazard:	Product is not explosive, however a dust explosion could result from an air / dust mixture.
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.

Other informationBulk density: 500 - 700 kg/m³

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity**Reactivity**

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Will not occur

Conditions to avoid

Avoid dust formation. Avoid humidity.

Incompatible materials

Substances to avoid:

None known during use and storage if used according to instructions.

Hazardous decomposition products

Hazardous decomposition products:

Carbon dioxide, Carbon monoxide

Gaseous products of degradation can be given off if the product is greatly overheated.

11. Toxicological Information**Information on toxicological effects**Acute toxicity

Assessment of acute toxicity:

Contact with molten product may cause thermal burns.

Irritation

Assessment of irritating effects:

Avoid contact with the skin, eyes and clothing. May cause slight irritation to the skin. May cause slight irritation to the eyes. Contact may cause burns and permanent injury.

Respiratory/Skin sensitization

Assessment of sensitization:

The substance is inert. The chemical structure does not suggest a sensitizing effect.

Germ cell mutagenicity

Assessment of mutagenicity:

No data was available concerning mutagenic activity. The chemical structure does not suggest a specific alert for such an effect.

Carcinogenicity

Assessment of carcinogenicity:

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No data was available concerning carcinogenic activity. The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The chemical structure does not suggest a specific alert for such an effect.

Developmental toxicity

Assessment of teratogenicity:

No data was available concerning toxicity to development. The chemical structure does not suggest a specific alert for such an effect.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The substance is inert.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the structure of the product.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Experience shows this product to be inert and non-degradable.

Bioaccumulative potential

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Assessment bioaccumulation potential:
Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments:
Adsorption in soil: Study scientifically not justified.

Additional information

Add. remarks environm. fate & pathway:
Due to the consistency of the product, dispersion into the environment is impossible. Therefore no negative effects on the environment may be anticipated based on the present state of knowledge.

13. Disposal Considerations

Waste treatment methods

Observe national and local legal requirements.

Contaminated packaging:
Dispose of in accordance with national, state and local regulations.

14. Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable

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Special precautions for user None known

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Transport in bulk according to Annex II of MARPOL and the IBC Code

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Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.