

Safety data sheet

According to Regulation (EC) No 1907/2006 (REACH)

ZX-324 Filament

1. Identification of the substance/mixture and of the company

1.1. Product identifier

ZX-324 Filament (material code: 581)

1.2. Relevant identified uses of the substance or mixture

Plastics/polymer processing (3D- based on Fused Filament Fabrication)

1.3. Details of the supplier of the safety data sheet

Wolf Kunststoff-Gleitlager GmbH
Heisenbergstr. 63-65
D 50169 Kerpen-Türnich
Tel.: +4922379749-0
Fax: +4922379749-20
info@zedex.de
www.zedex.de

1.4. Emergency number

Poison Center North (GIZ) – phone no. +49 (0) 551-19240

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Wolf Kunststoff- Gleitlager GmbH	Deutsche Bank	370 700 60	0 661 109 900	DEUTDE33	DE75 3707 0060 0661 1099 00
Heisenbergstr. 63 - 65	Kreissparkasse Köln	370 502 99	0 134 002 233	COKSDE33	DE32 3705 0299 0134 0022 33
50169 Kerpen -Türnich	Postbank Köln	370 100 50	0 121 663 503	PBNKDEFF	DE34 3701 0050 0121 6635 03
Deutschland	VoBa Rhein-Erft-Köln	370 623 65	1 310 609 010	GENODED1FHH	DE16 3706 2365 1310 6090 10
Tel. +49 2237 9749 -0 Fax +49 2237 9749 -20	Internet www.zedex.de E-Mail info@zedex.de		Geschäftsführer/Managing Director Wilfried Wolf, Gunter Wolf		Amtsgericht Kerpen/District Court Kerpen HRB Nr. 41798 • USt-IdNr. DE121861959

2. Hazards identification

2.1. Classification of the substance or mixture according to Regulation (EC) No 1272/2008 (CLP)

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

2.2. Label elements

The mixture is not subject to specific labelling in accordance with GHS criteria.

2.3. Other hazards

There are no known risks, if the regulation/details for handling are observed.
Contact with molten product may cause severe burns.

3. Composition/information on ingredients

3.1. Description of the mixture

This chemical product is a composition.
This product consists substantially of various high molecular weight polymers with high temperature resistance.

3.2. Information on ingredients

Ingredients with labelling requirements are not contained.

4. First-aid measures

4.1. After inhalation

In case of inhalation of vapours of the melted material
-carry the person out into fresh air
-bring the person into a semi-upright position
-keep the person warm

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In case of troubles in breathing the person must be taken to the next first-aid station or to the next hospital

4.2. After skin contact

Melted material on the skin or burns must be cooled with water as soon as possible. The wound must be covered with sterile bandages and the person has to be taken for medical care to the next first-aid station or to the next hospital. Attention: Never remove melted material from the wound yourself.

4.3. After eye contact

Remove contact lenses. Particles must be removed by washing the eye with eyelids spread. Obtain the doctor's advice as precautionary measure.

4.4. After ingestion

No danger of poisoning. The material is biologically inactive. In case of persistent symptoms seek medical help.

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

No hazard is expected under intended use and appropriate handling.

4.6 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

5. Firefighting measures

5.1. Extinguishing agent

Water spray jet, foam. Water is the best extinguishing agent. Carbon dioxide and dry chemicals are generally not recommended due to their poor cooling capacity which may cause a new ignition.

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5.2. Specific dangers

In case of fire carbon monoxide (CO) and carbon dioxide (CO₂) can be released.
 Product melts in case of fire.

5.3. Protection for firemen

Full protective clothing and self-contained breathing apparatus to be worn.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Collect product (Danger of slipping).

6.2. Environmental precautions

Let not enter surface water and sewage water system.

6.3. Methods and material for containment and cleaning up

Mechanical cleaning up.
 Avoid dry sweeping. Use an appropriate suction device for cleaning to avoid the generation of dust.

7 Handling and storage

7.1. Precautions for safe handling

Avoid overheating of material by improper handling.
 Under high processing temperatures or excessively long residence harmful gases and vapours might develop. Use with adequate ventilation. Local exhaust ventilation should be provided.

7.2. Conditions for safe storage, including any incompatibilities

No special measures necessary.
 The appropriate company regulations for fire prevention are to be followed.

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8 Exposure controls/personal protection

8.1. Control parameters

The general limit for dust is valid.

8.2. Exposure controls

The working area should be well ventilated

8.3. Respiratory protection

When exceeding the limiting dust value (TLV) we recommend an effective exhausting device or a breathin apparatus independent on incoming air.

8.4. Eye/face protection

Protective goggles or protective shield are necessary when dealing with hot melt (for example during cleaning the processing machines).

8.5. Hand protection/skin protection

Protective gloves are necessary when dealing with hot melt (for example during cleaning the processing machines).

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9 Physical and chemical properties

Appearance: solid (monofilament)

Colour: beige

Odour: odourless

Odour threshold: N/A

Melting point: ca. 340 °C

Boiling range: N/A, product decomposes

Flammability: 575 °C

Evaporation rate: N/A

Lower explosion limit: N/A, product decomposes

Explosion hazard: not explosive

Decomposition temperature: > 460 °C

Spontaneous ignition temperature: > 595 °C

Auto-ignition temperature: no data available

Relative density: no data available

Relative vapour density: N/A

Vapour pressure: N/A

Viscosity: N/A

Solubility in water: insoluble

pH value: N/A

Partition coefficient n-octanol/H₂O: N/A

Kinematic viscosity: N/A, since solid

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Density: 1.3- 1.5 g/cm³

10 Stability and reactivity

10.1. Reactivity

No hazardous reactions known when stored and handled according to instructions and used for its intended purpose.

10.2. Chemical stability

Product is stable. No hazardous reactions known when stored and handled according to instructions and used for its intended purpose.

10.3. Possibility of hazardous reactions

No hazardous reactions known when stored and handled according to instructions.

10.4. Conditions to avoid

Do not heat to a temperature above the decomposition temperature.

10.5. Incompatible materials

Concentrated sulphuric acid, strong oxidizing agents.

10.6. Hazardous decomposition products

No decomposition when handled according to instructions.
By strong overheating of the material carbon oxides and other toxic organic vapours may be generated.

11 Toxicological information

11.1. Acute toxicity

With proper use and in accordance with regulations there are no known dangers to health.

Contact with molten product can cause burns.

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11.2. Chronic toxicity

When used and handled according to specifications, the product does not have any harmful effects.

11.3. Other information

In our experience and according to the literature provided to us the product does not cause any noxious effects when used and handled according to regulations.

12 Ecological information

12.1. Toxicity

Data about ecological effects are not available for this product.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulation potential and mobility in soil

Biodegradability is not probable due to the consistency as well as the insolubility in water of the product.

12.4. Results of the PBT and vPvB assessment

The product does not fulfil the criteria for classification as PBT or vPvB.

12.5. Other adverse effects

No relevant information available.

Due to the consistency of the product a disperse distribution in the environment is not likely. Therefore, according to the present state of knowledge negative ecological effects are not expected.

13 Disposal considerations

13.1. Waste treatment methods

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Product residues can be recycled or treated in an energy recovery plant.
When segregated, unpolluted product residues can be recycled mechanically.

13.2. European waste catalogue

The unpolluted product has no dangerous properties and is therefore not a hazardous waste within the meaning of regulation of the european list of wastes.

13.3. Waste codes/waste identification

The exact assignment to a waste code must be carried out source- and use-related. Proposals for the waste code numbers based on the probable use of the unpolluted product:

07 02 13 (waste plastic)

20 01 39 (plastics from separately collected fractions)

13.4. Packaging

Uncontaminated or cleaned packaging can be recycled without verification.

14 Transport information

No special regulations, because the material is not a dangerous good with regard to the national and international transport regulations.

15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific

A safety data sheet for this article is not required by law. The particulars given in this Safety Data Sheet are not required in accordance with article 31 and annex II of the Regulation (EC) No 1907/2006. They merely serve the purpose of providing sufficient information on the voluntary basis with a view to ensure the safe utilization of such mixture.

15.2. EU regulations

No dangerous substance in the sense of EU-directives.

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15.3. Chemical safety assessment

A chemical safety assessment has not been carried out.

15.4. National regulations

Storage class VCI/TRGS 510 (Germany): 11 (flammable solid materials)
 Water hazard class (Germany): not hazardous to water (Kenn-Nr. 766, BAnz AT 10.08.2017 B5)

16 Other information

The above data is based on our latest information and experience. They do not represent any assurance of properties in the legal sense. We do not guarantee for factors which are beyond our knowledge and/or control. Therefore every user must consider the intended application and the respective purpose on his own responsibility. Freedom from patent rights, copyrights and rights of protection of patterns and designs cannot be taken for granted.

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