

Materials in the b.safe PFAS Analytic product range

PEEK (polyether ether ketone), PE (polyethylene) and PP (polypropylene) are polymeric materials that do not contain PFAS (perfluorinated and polyfluorinated alkyl substances).

This is because their chemical structure does not contain any fluorine atoms. PFAS are fluorinated compounds. However, these compounds are not found in purely hydrocarbon-based polymers such as PEEK, PE and PP.

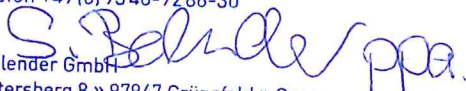
Therefore, these materials are a safe choice for applications that require a PFAS-free environment.

The following b.safe branded products are made from PEEK, PE and PP (Material Safety Data Sheet attached).

- b.safe Cap GL45 PFAS Analytic (M 445-03)
- b.safe ventilation valve PFAS Analytic (M 405-01)
- b.safe Fittings PFAS Analytic (M 401-06, M 401-18)
- b.safe picture fitting PFAS Analytic (M 401-01)
- b.safe Kappilar tubing PEEK (R 730-02, R 730-08)

BOHLENDER

Silas Bohlender
silas.bohlender@bohlender.de
Telefon +49 (0) 93 46-92 86-30


Bohlender GmbH
Waltersberg 8 » 97947 Grünsfeld » Germany

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

Product identifier

Polyetheretherketone (PEEK)

Relevant identified use of substance/preparation and use which is advised against
None.

Relevant identified uses

Semi-finished products and plastic products.

Details of the supplier of safety data sheet

Address: BOHLENDER GmbH, Waltersberg 8, D-97947 Grünsfeld

Tel./ Fax.: +49 9346 9286-0 / +49 9346 9286-51

E-Mail: info@bohlender.de

Internet: www.bohlender.de / www.bola.de / www.sicco.de

Emergency Telephone Number: +49 30-19240

SECTION 2: Hazards identification

There are no hazards known from this product

SECTION 3: Composition/information on ingredients

Polyetheretherketone (PEEK)

Possibly contains glass fibres, carbon fibres, reinforcements, pigments, colorants and other additives.

The product does not contain hazardous ingredients.

SECTION 4: First aid measures

Description of First aid measures

Inhalation

After inhalation of fire gases or thermal decomposition products, move affected person away from danger zone taking care of self-protection, start artificial respiration if necessary. Provide silence, warmth and seek medical attention.

Skin contact with hot PEEK

Cool skin immediately with cold water for a long time, remove dirty clothes. Do not remove cooled melt from skin. Cover burns with clean bandages. In case of skin irritation caused by glass fibres wash affected skin thoroughly with water. Do not rub.

Eye contact with hot PEEK:

Do not rub in case of foreign object in the eye. Do not remove cooled melt from skin. Cover the injured area with clean bandages. Cover eyes if necessary and seek medical attention of eye doctor immediately.

SECTION 5: Fire fighting measures**Suitable extinguishing media**

Water, dry powder, carbon dioxide, foam.

Advice for fire-fighters

Use self-contained respirator (breathing apparatus with compressed air).
Do not allow contaminated fire water to enter drains/surface water/ground water.

Additional advice

The product melts/catches fire in case of flame action and continues burning outside the source of ignition. Carbon dioxide, carbon monoxide and monomers can be released in case of fire. Depending on the fire conditions, fission and oxidation-products can occur. The fire can spread out if decomposition products are catching fire spontaneously. Cool melt with water. Fire water and fire rests must be collected and disposed of according to local rules.

SECTION 6: Accidental release measures**Environmental precautions**

Remove product residues mechanically from waste water before leading it to drains.

SECTION 7: Handling and storage**Advice for safe handling**

Avoid overheating due to incorrect processing, provide adequate ventilation at processing machines if necessary. Avoid inhalation of vapours. In case of dust formation, take action against electrostatic charging, keep away from ignition sources.

Storage

Observe the relevant specifications of operative fire protection.

SECTION 8: Exposure controls/personal protection**Mechanical processing**

(TRGS 900, status 2000)
MAC: 0,6 mg/m³

Personal protective equipment**Respiratory protection:**

In case of dust pollution use respiratory protection.

Eye / Face protection

Wear protection goggles with side shields in case of mechanical processing.

Skin protection

Use preventive skin protection. Protective gloves should be used in case of sensitivity against glass fibres.

Hygienic measures

The general specifications of industrial hygiene have to be followed. Wash hands before any break and at end of work. Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state / form:	Solid (semi-finished product, finished product)
Colour:	different, depending on colouring
Density:	1,32-1,49 g/cm ³ at 20°C; DIN 53479
Odour:	Odourless
Melting point:	343 °C, DIN 53765
Thermal decomposition:	> 450 °C, DIN 53765-D-10
Ignition temperature:	595 °C; ASTM-D 1929
Explosion limits:	Not applicable
Water solubility (20 °C):	Non soluble
	Non soluble in common organic solvents

SECTION 10: Stability and reactivity**Conditions to avoid**

Thermal decomposition beginning at > 450°C

Incompatible materials

Strong oxidising agents, concentrated and strongly oxidising acids (e.g. concentrated sulphuric acid).

Hazardous decomposition products

Smoldering respectively incomplete combustion can cause toxic gas mixtures which mainly contain CO and CO₂.

SECTION 11: Toxicological information

No adverse effects are known if the product is handled correctly and precautions on work hygiene are observed. Contact with melted product can cause burns. The dust and glass fibres that may be released during mechanical treatment can cause irritations of skin, respiratory system and eyes.

SECTION 12: Ecological information

Due to its practical insolubility in water, a cleaning by means of filtration or sedimentation is possible.

SECTION 13: Disposal considerations

Correctly sorted and clean product can be recycled or disposed of in accordance with local laws and regulations for house hold waste or burned in an appropriate incineration plant.

Waste code for the polluted product: 20 01 06 (other plastics, European waste catalogue)

SECTION 14: Transport information

ADR/RID	no dangerous goods
ADN	no dangerous goods
IATA	no dangerous goods
IMDG	no dangerous goods

SECTION 15: Regulatory information**Labelling as per EU directives**

Labelling is not required.

National regulations

GefStoffV (15.11.1999): no labelling required.

WHG (12.11.1996): not hazardous to water according to VwVwS (17.05.1999)

SECTION 16: Other information

This safety data sheet is valid for PEEK, PEEK MT, PEEK MT black, PEEK GF.

The information given in this safety data sheet is based on our present available experience and only describes the security appearance of the product. It is up to the user to check if the product is suitable for the respective application. All questions regarding warranty and liability for this product are regulated according to our sales conditions unless legal requirements are differing.

Change index

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01	12.07.2016	New emergency telephone no.	Section 1, 1.4

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

Polyethylene (PE)

Relevant identified use of substance/preparation and use which is advised against

None.

Relevant identified uses

Semi-finished products for the manufacture of plastic products.

Details of the supplier of safety data sheet

Address: BOHLENDER GmbH, Waltersberg 8, D-97947 Grünsfeld

Tel./ Fax.: +49 9346 9286-0 / +49 9346 9286-51

E-Mail: info@bohlender.deInternet: www.bohlender.de / www.bola.de / www.sicco.de**Emergency Telephone Number: +49 30-19240****SECTION 2: Hazards identification****Classification of the substance or mixture**

Not known.

SECTION 3: Composition/information on ingredients**Product type**

Polymer of ethylene, CAS-no. not necessary.

SECTION 4: First aid measures**Description of First aid measures****General information**

Medical aid is not necessary.

First aid measures

None.

Routes of exposure

None.

Symptoms / effects

None.

Bohlender GmbH

Waltersberg 8
D-97947 Grünsfeld
Germany
Telefon : +49 (0)9346 - 9286-0
Telefax : +49 (0)9346 - 9286-51
E-Mail : info@bohlender.de
www.bohlender.de

Geschäftsführer:
Volker Bohlender
Sitz der Gesellschaft: Grünsfeld

Amtsgericht Mannheim HRB 560446
Steuernummer 8028818258
U-St-IHnr. DE812198581

Sparkasse Tauberfranken
BLZ 673 525 65 » Konto-Nr.: 4013611
IBAN: DE 57673525650004013611 / BIC SOLADES1TBB

Volksbank Main-Tauber eG
BLZ 673 900 00 » Konto-Nr.: 71678806
IBAN: DE15673900000071678806 / BIC GENODE61WTH



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Laborbedarf aus Hochleistungskunststoffen
www.bola.de
Trockenschränke und Exsikkatoren
www.sicco.de

SECTION 5: Fire fighting measures**Suitable extinguishing media**Water mist, dry powder, carbon dioxide (CO₂), foam.**Hazard information**

Not applicable.

SECTION 6: Accidental release measures**Methods and material for containment and cleaning up**

Collect released material.

Personal precautions

None.

Environmental precautions

Not applicable.

Cleaning equipment

Not applicable.

Cleaning equipment that should not be used

Not applicable.

SECTION 7: Handling and storage**Precautions for safe handling**

No special provisions have to be observed.

Storage

Unlimited shelf life.

Storage category

(TRGS 510): 11, combustible solids

SECTION 8: Exposure controls/personal protection**Control Parameters****Exposure limit values and exposure controls****Special design of processing facilities**

Not necessary.

Exposure limit values

None.

Exposure assessment

Not applicable.

Respiratory protection

Not required.

Eye Protection

Not required.

Eye Protection

Not required.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state / form:	Solid, rod
Colour:	black
Density:	0,955 g/cm ³ at 20°C; DIN 53479
Odour:	Not applicable
Crystalline melting range:	126-130 °C
Water solubility:	Non soluble
Flash point:	Not applicable
Thermal decomposition:	> 300 °C
Ignition temperature:	~ 350 °C
Decomposition temperature:	> approx. 300 °C

9.2 Other information

Viscosity, dynamic:	Not applicable
Dust explosion class:	Not applicable

SECTION 10: Stability and reactivity**Thermal decomposition**

Above approx. 300 °C

Hazardous decomposition products

Besides carbon black also carbon dioxide and water as well as low-molecular parts will arise during the burning process. In case of incomplete burning also carbon monoxide may arise.

Use of stabilisers

None.

Exothermic reactions

None.

Advice regarding aggregate conditions

None.

Conditions to avoid

None.

Substances to avoid

None.

Chemical stability

In case of fire or if the product is over heated due to improper processing, toxic gases and vapours can occur due to thermal decomposition.

Possibility of hazardous reactions

No hazard reactions known if properly used.

Hazardous decomposition products

Smoldering respectively incomplete combustion can cause toxic gas mixtures which mainly contain CO and CO₂.

SECTION 11: Toxicological information

No hazardous effects on health were observed over several years of usage.

SECTION 12: Ecological information**Toxicity**

No biodegradation, no solubility in water, no hazardous effects on the environment are to be expected.

Mobility

Not applicable.

Accumulation

Not applicable

Eco-toxicity

Not applicable.

SECTION 13: Disposal considerations

Can be recycled or be disposed of with household waste (please observe the national laws and regulations).

Recommended waste codes / waste names for unprocessed product

120 105 waste of polyolefin

SECTION 14: Transport information

No dangerous good with regards to transport regulations.

Notice/symbol transport containers

None.

Special marking for containers

None.

SECTION 15: Regulatory information

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

Candidate list of substances of very high concern for authorisation

This product does not contain any substances of very high concern (regulation (EU) No. 1907/2006 paragraph 57 (REACH)).

GefStoffV/EG: no labelling required.

Water hazard class: class 0 (self-assessment)

Other national regulations: none

SECTION 16: Other information

This information solely describes the safety requirements of the product(s) and is based on our current state of knowledge. It does not give any assurance concerning the product(s) described within the meaning of statutory warranty regulations.

Change index

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

Product identifier

Polypropylene (PP)

Relevant identified use of substance/preparation and use which is advised against

None.

Relevant identified uses

Semi-finished products and plastic products.

Details of the supplier of safety data sheet

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Tel./ Fax.: +49 9346 9286-0 / +49 9346 9286-51

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Emergency Telephone Number: +49 30-19240

SECTION 2: Hazards identification

There are no hazards known from this product

SECTION 3: Composition/information on ingredients

Polypropylene (PP)

Possibly contains glass fibres, carbon fibres, reinforcements, pigments, colorants and other additives.

The product does not contain hazardous ingredients.

SECTION 4: First aid measures

Description of First aid measures

Inhalation

After inhalation of fire gases or thermal decomposition products, move affected person away from danger zone taking care of self-protection, start artificial respiration if necessary. Provide silence, warmth and seek medical attention.

Skin contact with hot PP

Cool skin immediately with cold water for a long time, remove dirty clothes. Do not remove cooled melt from skin. Cover burns with clean bandages.

Eye contact with hot PP

Do not rub in case of foreign object in the eye. Do not remove cooled melt from skin. Cover the injured area with clean bandages. Cover eyes if necessary and seek medical attention of eye doctor immediately.

SECTION 5: Fire fighting measures**Suitable extinguishing media**

Water jet, dry powder, carbon dioxide (CO₂), foam.

Advice for fire-fighters

Use self-contained respirator (breathing apparatus with compressed air).
Do not allow contaminated fire water to enter drains/surface water/ground water.

Additional advice

The product melts/catches fire in case of flame action and continues burning outside the source of ignition. Carbon dioxide, carbon monoxide and monomers can be released in case of fire. Depending on the fire conditions, fission and oxidation products can occur. The fire can spread out if decomposition products are catching fire spontaneously. Cool melt with water.

SECTION 6: Accidental release measures**Environmental precautions**

Remove product residues mechanically from waste water before leading it to drains.

SECTION 7: Handling and storage**Advice for safe handling**

Avoid overheating due to incorrect processing, provide adequate ventilation at processing machines if necessary. Avoid inhalation of vapours. In case of dust formation, take action against electrostatic charging, keep away from ignition sources.

Storage

Observe the relevant specifications of operative fire protection.

SECTION 8: Exposure controls/personal protection**Mechanical processing**

(TRGS 900, status 2000)
MAC: 0,6 mg/m³

Personal protective equipment**Respiratory protection**

In case of dust pollution use respiratory protection. Additionally wear protection goggles with side shields in case of mechanical processing.

Eye / Face protection

Wear protection goggles with side shields in case of mechanical processing.

Skin protection

Use preventive skin protection. Protective gloves should be used in case of sensitivity against glass fibres.

Hygienic measures

The general specifications of industrial hygiene have to be followed. Wash hands before any break and at end of work. Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state / form:	Solid (semi-finished product, finished product)
Colour:	different, depending on colouring
Density:	0,91-1,14 g/cm ³ at 20°C; DIN 53479
Odour:	Odourless
Melting point:	165 °C, DIN 53765
Thermal decomposition:	> 240 °C, DIN 53765-D-10
Ignition temperature:	> 330 °C; ASTM-D 1929
Explosion limits:	Non-applicable
Water solubility (20 °C):	Non soluble non soluble in common organic solvents

SECTION 10: Stability and reactivity**Conditions to avoid**

Thermal decomposition beginning at > 240 °C

Incompatible materials

Strong oxidising agents, halogens.

Hazardous decomposition products

Mainly CO and CO₂, carbon black, hydrocarbons and crack products like aldehydes and ketones, volatile fatty acids

SECTION 11: Toxicological information

No adverse effects are known if the product is handled correctly and precautions on work hygiene are observed. Contact with melted product can cause burns. The dust and glass fibres that may be released during mechanical treatment can cause irritations of skin, respiratory system and eyes.

SECTION 12: Ecological information

Due to its practical insolubility in water, a cleaning by means of filtration or sedimentation is possible.

SECTION 13: Disposal considerations

Correctly sorted and clean product can be recycled or disposed of in accordance with local laws and regulations for house hold waste or burned in an appropriate incineration plant.

Waste code for the polluted product: 20 01 06 (other plastics, European waste catalogue)

SECTION 14: Transport information

ADR/RID	no dangerous goods
ADN	no dangerous goods
IATA	no dangerous goods
IMDG	no dangerous goods

SECTION 15: Regulatory information**Labelling as per EU directives**

Labelling is not required.

National regulations

GefStoffV (15.11.1999): no labelling required.

WHG (12.11.1996): not hazardous to water according to VwVwS (17.05.1999)

SECTION 16: Other information

This safety data sheet is valid for PP und PP filled with glass fibres (PP-GF)

The information given in this safety data sheet is based on our present available experience and only describes the security appearance of the product. It is up to the user to check if the product is suitable for the respective application. All questions regarding warranty and liability for this product are regulated according to our sales conditions unless legal requirements are differing.

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