

SAFETY DATA SHEET ACCORDING TO EC-REGULATIONS 1907/2006 (REACH) & 1272/2008 (CLP)

Product: Polyetheretherketone polymer

Version: 1.0

Revision Date: 01/01/2024

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY /

UNDERTAKING

1.1 Product identifier

Trade name

PEEK-VAT10G/20G/30G/80G/130G/170G

Other means of identification

1.2

CAS No.

PEEK Polymer (31694-16-3 or 29658-26-2)

EC No.

Not applicable.

REACH Registration No.

Not applicable.

1.3 Recommended use of the substance and restrictions on use

Identified use(s)

The materials are generally used for injection moulding and extrusion operations.

1.4 Details of the supplier of the safety data sheet

1.4.1 Manufacturer Details

Company Identification

Quilliant Advanced Material Pte Ltd.

Registration office: 133 New Bridge Road #10-03 China Town point,

Singapore 059413

0086 138 1854 7689

1.5 Emergency telephone number

Emergency Phone No.

0086 138 1854 7689

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP).

Not classified as dangerous for supply/use.

2.2 Label elements (GHS)

None.

Hazard pictogram(s)

None.

Signal word(s)

None.

Hazard statement(s)

None.

Precautionary statement(s)

None.

2.3 Other hazards

Not classified as PBT or vPvB.

PEEK polymer does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0. 1% or higher

Not explosive,

See section 9.2 below.

None.

2.4 Additional Information

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Polyetheretherketone polymer (CAS No. 29658-26-2 or 31694-16-3). This product does not contain any reportable hazardous materials

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

Hazardous ingredient(s)	%W/W	EC No.	CAS No.	REACH Registration No	Hazard statement(s)
None.	-	-	-	-	-

3.2 Additional Information

For full text of H/P phrases see section 16.

This product is 100% synthetic microparticles* as defined in Entry 78 of Annex XVII to Regulation (EC) No 1907/2006* polyetheretherketone (PEEK) polymer (CAS No. 29658-26-2 or 31694-16-3),

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact		After contact with skin, wash immediately with plenty of soap and water. In the event of contact with molten product: Cool affected area quickly with water. Do not attempt to remove hardened product. Obtain medical attention.
Eye Contact		
Ingestion		Flush eyes with water for at least 2 minutes while holding eyelids open.
4.2 Most important symptoms and effects, both acute and delayed		Call a physician (or poison control centre immediately). Do not induce vomiting
4.3 Indication of any immediate medical attention and special treatment needed		Unlikely to be required but if necessary treat symptomatically.
4.3 Indication of any immediate medical attention and special treatment needed		Unlikely to be required but if necessary treat symptomatically.
SECTION 5: FIRE-FIGHTING MEASURES		
5.1 Extinguishing media		
Suitable Extinguishing Media		In case of fire, use water spray, foam, dry powder or CO2 for extinction.
Unsuitable Extinguishing Media		None.
5.2 Special hazards arising from the substance or mixture		In case of fire the following can develop: Oxides of carbon.
5.3 Advice for fire-fighters		A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Dust is ignitable but will not sustain combustion. A high temperature source of ignition is required. Insensitive to sparks. The minimum spark energy required for ignition of a dust cloud is greater than 5000 mJ. It will not train fire, e.g. along beams etc.
5.4 Other		Dispose of contaminated extinction water according to official regulations.
SECTION 6: ACCIDENTAL RELEASE MEASURES		
6.1 Personal precautions, protective equipment and emergency procedures		Avoid inhalation and contact with eyes or skin. Ensure sufficient supply of air. Avoid build up of dust. Remove possible cause of ignition – do not smoke. Take precautionary measures against static discharge.
6.2 Environmental precautions		Avoid release to the environment. Prevent surface and ground water infiltration, as well as ground penetration. This product contains synthetic polymer microparticles as amended by Regulation (EU) 2023/2055. The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.
6.3 Methods and material for containment and cleaning up		Sweep up carefully with non-sparking tools. Transfer to a lidded container for disposal or recovery.
6.4 Reference to other sections		None.
6.5 Additional Information		None.
SECTION 7: HANDLING AND STORAGE		
7.1 Precautions for safe handling		General hygiene measures for the handling of chemicals are applicable. Eating, drinking, smoking, as well as food storage, is prohibited in work room. Avoid build up of dust. Local Exhaust Ventilation at the workplace or on the processing machines required. Note: Danger of explosive dust Machine Cleaning (purging): Purging with other polymers (e.g. Polyethylene) at high temperatures can be hazardous. Auto ignition may also occur. Local exhaust ventilation is required. The relevant Safety Data Sheet for the purge material to be used should be consulted.
7.2 Conditions for safe storage, including any incompatibilities		Store products enclosed, in original packing.
Storage Temperature		Store at room temperature.
Storage Life		10 Year(s).
Incompatible materials		None known
7.3 Specific end use(s)		The materials are generally used for injection moulding and extrusion operations.
SECTION 8: EXPOSURE CONTROLS/PERSONAL		
8.1 Control parameters		Ensure adequate ventilation.
8.1.1 Occupational exposure limits		None.

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note:
Dust. (general dust limit value)	-	-	10			Inhalable Dust
			4			Respirable Dust.

8.1.2 Biological limit value

None

8.1.3 PNECs and DNELs

Not available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Local Exhaust Ventilation at the workplace or on the processing machines required.

8.2.2 Personal protection equipment

Eye/face protection

Eye protection with side protection (EN 166)

Skin protection (Hand protection/ Other)

Impervious Gloves. Plastic or synthetic rubber gloves.
Additional information on hand protection – No tests have been performed.

When dealing with heated material: Insulating gloves EN 407 (heat)

Respiratory protection

If above exposure limits are likely to be exceeded, breathing mask with fine dust filter (EN 143)

8.2.3 Environmental Exposure Controls

No special requirements.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Solid (Powder/Granulate)
Colour.	White (Powder); Grey/ Brown (Granulate)
Odour	Odourless
Odour threshold (ppm)	None
pH (Value)	Not applicable
Melting point (°C)	343oC
Boiling point/boiling range (°C):	Not known.
Flash point (°C)	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Solid , Non-flammable
Explosive limit ranges	Not explosive.
Vapour pressure (Pascal)	39.6 (@107oC)
Vapour density (Air=1)	Not known
Bulk Density (g/ml)	~1.3
Solubility (Water)	Insoluble
Solubility (Other)	Insoluble
Partition coefficient (n-Octanol/water)	Not known
Auto ignition point (°C)	595°C
Decomposition temperature (°C)	> 450°C
Viscosity (mPa. s)	Not known
Kinematic viscosity (mm ² /s)	Not applicable
Particle characteristics	Granule (pellets) dimensions: Length 2.0 – 4.0mm; diameter 2.0 – 3.5mm
Powder grades:	Course white powder typically ~ 5mm particle size

9.2 Other information

9.2.1 Information with regard to physical hazard classes Explosives

Not explosive, May form explosible dust clouds in air.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Stable under normal conditions.
10.4 Conditions to avoid	Stable under normal conditions. Electrostatic charge. Open flame, ignition sources. Decomposes at temperatures above 450°C.
10.5 Incompatible materials	Concentrated Sulphuric acid
10.6 Hazardous Decomposition Product(s)	Oxides of carbon

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Substances

Acute toxicity		
	Ingestion	Predicted to be low toxicity under normal conditions of handling and use.
	Inhalation	Mechanical irritation of the respiratory tract.
	Skin Contact	Repeated and/or prolonged skin contact may cause irritation.
		In the event of contact with molten product: Thermal Burns (molten polymer will adhere to skin and cause severe burns).
	Eye Contact	No data. Dust may have irritant effect on eyes.
		Permanent damage is unlikely.
	Hazard label(s)	Not known
	Serious eye damage/irritation	Not known
	respiratory or skin sensitization	Not known
	Mutagenicity	Not known
	Carcinogenicity	Not known
	Reproductive toxicity	Not known
	STOT - single exposure	Not known
	STOT - repeated exposure	Not known
	Aspiration hazard	Not known
	Mixtures	Not applicable
11.1.2		
11.2	Information on other hazards	None
11.2.1	Endocrine disrupting properties	PEEK polymer does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0. 1% or higher
11.2.2	Other information	None
SECTION 12: ECOLOGICAL INFORMATION		
12.1	Toxicity	Low toxicity to aquatic organisms.
12.2	Persistence and degradability	Not readily biodegradable.
12.3	Bioaccumulative potential	Not classified as PBT or vPvB.
12.4	Mobility in soil	The product has low mobility in soil. The product has low mobility in sediment.
12.5	Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
12.6	Endocrine disrupting properties	PEEK polymer does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0. 1% or higher
12.7	Other adverse effects	None anticipated
SECTION 13: DISPOSAL CONSIDERATIONS		
13.1	Waste treatment methods	Disposal should be in accordance with local, regional, state or national legislation.
13.2	Additional Information	The European waste codes are recommendations based on the scheduled use of this product. For alternative uses and applications, other waste codes may be allocated under certain circumstances. 07 02 13- waste plastic, 07 02 99-waste not otherwise specified. This product contains synthetic polymer microparticles as amended by Regulation (EU) 2023/2055.The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council. Measures should be taken to prevent releases of synthetic polymer microparticles to the environment. Sweep up spillages immediately and transfer to a container for disposal. Do not release waste to sewers.
SECTION 14: TRANSPORT INFORMATION		
14.1	Land transport (ADR/RID)	Not classified as dangerous for transport.
	UN number	Not applicable
	Proper Shipping Name	Not applicable
14.2	Sea transport (IMDG)	Not classified as dangerous for transport.
	UN number	Not applicable
	Proper Shipping Name	Not applicable
14.3	Air transport (ICAO/IATA)	Not classified as dangerous for transport.
	UN number	Not applicable
	Proper Shipping Name	Not applicable
14.4	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable
SECTION 15: REGULATORY INFORMATION		

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	Not classified as dangerous for supply/use.
15.1.1	EU regulations Authorisations and/or restrictions on use	This product contains synthetic polymer microparticles as amended by Regulation (EU) 2023/2055. The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.
15.1.2	National regulations	
	USA	
	TSCA – PEEK Polymer	Listed - ACTIVE
	OSHA	Not classified as a hazardous material under the criteria outlined in the OSHA Hazard Communication Standard (HCS) (29 CFR 1910. 1200).
	China	
	IECSC – PEEK Polymer	Listed
	China Hazardous Chemical Inventory	Not Listed
15.2	Chemical Safety Assessment	Not relevant for this material.

SECTION 16: OTHER INFORMATION

Disclaimer	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It do not represent any guarantee of the properties of the product. We shall not be held liable for any damage resulting from handling or from contact with the above product.
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