

SAFETY DATA SHEET

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

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

1.1 Product identifier

Trade name

VICTREX HT™ P22PF and HT™ P45PF

1.2 Other means of identification

CAS No.

PEK Polymer (27380-27-4)

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

Victrex Manufacturing Ltd.

Hillhouse International, Thornton-Cleveleys
Lancashire, UK - FY5 4QD

Telephone

+ 44 (0) 1253 897700

Fax:

+ 44 (0) 1253 897701

E-Mail (competent person)

RAPS@victrex.com

1.4.2 Only Representative details

Company Identification

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Dlugosza 67,
43-188 Orzesze,
Poland

+48 501168430

pawelskiba@stewardshipsolutions.eu

1.4.3 Regional Importer Address

See section 16 for regional importer / supplier information

1.5 Emergency telephone number

Emergency Phone No.

+ 44 (0) 1253 897754 – UK (24/7)

Hours of operation 09:00 – 17:00 (Monday – Friday):

+ (49) 6192 964 900 - Europe

+ (1) 484 342 6001 – USA

+ 86-21-6113 6900 - China

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)

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.

2.4 Additional Information

None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

PolyEtherKetone (PEK) polymer (CAS No. 27380-27-4)

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	Flush eyes with water for at least 2 minutes while holding eyelids open.
Ingestion	Call a physician (or poison control centre immediately). Do not induce vomiting wash out mouth with water.
4.2 Most important symptoms and effects, both acute and delayed	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 CO ₂ 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. Additional information can be obtained from the Victrex website www.victrex.com
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 PROTECTION

8.1	Control parameters	Ensure adequate ventilation.																					
8.1.1	Occupational exposure limits	None.																					
		<table border="1"><thead><tr><th>SUBSTANCE.</th><th>CAS No.</th><th>LTEL (8 hr TWA ppm)</th><th>LTEL (8 hr TWA mg/m³)</th><th>STEL (ppm)</th><th>STEL (mg/m³)</th><th>Note:</th></tr></thead><tbody><tr><td>Dust. (general dust limit value)</td><td>-</td><td>-</td><td>10</td><td></td><td></td><td>Inhalable Dust</td></tr><tr><td></td><td></td><td></td><td>4</td><td></td><td></td><td>Respirable Dust.</td></tr></tbody></table>	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.
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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.

Respiratory protection



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

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)
Colour.	White (Powder)
Odour	Odourless
Odour threshold (ppm)	None
pH (Value)	Not applicable
Melting point (°C)	373°C
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 (@107°C)
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	Fine powder Particle size: HT TM P22PF D ₅₀ 30-70 µ, HT TM P45PF D ₅₀ 40-70 µm

No 'Nanoparticles' or 'Nanomaterial' substances (per the definition in EU Commission Recommendation 2022/3689/EU) have been generated in the manufacturing process, nor intentionally added to the Victrex grades detailed above.

9.2 Other information

Grade	P max	Kst	St Class	Minimum Ignition Energy (mJ)
HT 22PF	6.7 bar g	90 bar m/s	1	> 500 mJ
HT 45PF	7.4 bar g	120 bar m/s	1	> 500 mJ

9.2.1 Information with regard to physical hazard classes

Explosives

May form explosive 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)

Serious eye damage/irritation

respiratory or skin sensitization

Mutagenicity

Carcinogenicity

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Aspiration hazard

Not known

11.1.2 Mixtures

Not applicable

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

None

PEK 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	PEK 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 MARPOL73/78 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 – PEK 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 – PEK Polymer	Listed
China Hazardous Chemical Inventory 2015	Not Listed
15.2 Chemical Safety Assessment	Not relevant for this material.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Updated in line with Regulation (EU) 2020/878 and (EU) 2023/2055.

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
DNEL	Derived No Effect Level
PNEL	Predicted No Effect Concentration

References: Workplace Exposure Limit (UK HSE EH40)

Risk Phrases and Safety Phrases: None

Hazard statement(s) and Precautionary statement(s): None

Training advice: www.victrex.com

Additional Information

Manufactured in the UK by Victrex Manufacturing Ltd, under a Quality System approved to ISO 9001.

For the latest copy of this MSDS please check our website here [Material Safety Data Sheets \(MSDS\) - Victrex](http://Material Safety Data Sheets (MSDS) - Victrex)

Additional information on the properties, processing and application of VICTREX polymers is available at www.victrex.com. These details refer to the product as it is delivered.

The statements made here should describe the product with regard to the necessary safety precautions – they are not meant to guarantee definite characteristics – but they are based on our present up-to-date knowledge.

Regional Importer Addresses

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SDS Date of Preparation: 22-August-2025 **updated from SDS Revision:** 13-June-2024

Victrex Global Sites

This information is provided "as is". It is not intended to amount to advice. Use of the product is at the customer's/user's risk. It is the customer's/user's responsibility to thoroughly test the product in each specific application to determine its performance, efficacy and safety for each end-use product, device or other application and compliance with applicable laws, regulations and standards. Mention of a product is no guarantee of availability. Victrex reserves the right to modify products, data sheets, specifications and packaging. **Victrex makes no warranties, express or implied (including, without limitation, any warranty of fitness for a particular purpose or of intellectual property non-infringement) and will not be liable for**

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