



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™ PEEK 450FE20**
- 1.2 Other means of identification**
CAS No. PEEK Polymer (31694-16-3 or 29658-26-2)
PTFE Polymer (9002-84-0)
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.
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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**
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Dlugosza 67,
43-188 Orzesze,
Poland
Telephone: +48 501168430
E-Mail (competent person) 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
+(49) 6192 964 900 - Europe
+(1) 484 342 6001 - USA
Hours of operation 09:00 – 17:00 (Monday – Friday)

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

This product does not contain any reportable hazardous materials.

Based on Polyetheretherketone polymer (CAS No. 29658-26-2 or 31694-16-3) and
Polytetrafluoroethylene (PTFE) (CAS No: 9002-84-0)

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.

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



Eye Contact	affected area quickly with water. Do not attempt to remove hardened product. Obtain medical attention. 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: When glowing and during combustion, CO/CO ₂ is generated as well as the potential for the release of degradation products such as Hydrogen Fluoride, Tetrafluoroethylene, Hexafluoropropylene, Perfluoroisobutylene and Carbonyl Fluoride
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.
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. This is particularly important due to the presence of PTFE. Avoid conditions where decomposition products may be formed. 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.

Contamination of tobacco products MUST be avoided. "Polymer Fume Fever" is particularly associated with the smoking of contaminated tobacco products. This condition is characterised by influenza-type symptoms occurring a few hours after exposure and lasting up to 48 hours.

PTFE begins to decompose very slowly above 260°C and increases rapidly above 360°C. Processing above these temperatures yields a range of high toxicity and corrosive products and therefore is not recommended without the use of LEV.

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 www.victrex.com

7.2 Conditions for safe storage, including any incompatibilities

Storage Temperature
Storage Life
Incompatible materials

Store products enclosed, in original packing.

Store at room temperature.
> 10 Year(s).
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. This can be achieved by local exhaust ventilation or general ventilation. If this is sufficient to maintain the concentration under the WEL or TRGS 900 values, suitable breathing protection should be worn. Applies only if the maximum permissible exposure values are listed here.

8.1.1 Occupational exposure limits

None.

SUBSTANCE.	CAS No.	LTTEL (8 hr TWA ppm)	LTTEL (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.
	
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 (Granulate)
Colour.	Grey/ Brown
Odour	Odourless
Odour threshold (ppm)	None
pH (Value)	Not applicable
Melting point (°C)	343°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)	~1.4
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

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

9.2.1 Information with regard to physical hazard classes

Explosives Not explosive

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)	When glowing and during combustion, CO/CO ₂ is generated as well as the potential for the release of degradation products such as Hydrogen Fluoride, Tetrafluoroethylene, Hexafluoropropylene, Perfluoroisobutylene and Carbonyl Fluoride.

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
11.1.2 Mixtures	Not applicable
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.

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	None
15.1.2 National regulations	
USA	
TSCA – PEEK Polymer	Listed - ACTIVE
TSCA – PTFE 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
IECSC – PTFE 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 (EC) No. .

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.

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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[Victrex Global Sites](#)

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