

## 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

<b>1.1 Product identifier</b>	
Trade name	<b>VICTREX™ PEEK 450FE20</b>
<b>1.2 Other means of identification</b>	
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.
<b>1.3 Recommended use of the substance and restrictions on use</b>	
Identified use(s)	The materials are generally used for injection moulding and extrusion operations.
<b>1.4 Supplier details</b>	
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)	<a href="mailto:RAPS@victrex.com">RAPS@victrex.com</a>
<b>1.5 Emergency telephone number</b>	
Emergency Phone No.	+ 44 (0) 1253 897754

### SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>2.1.1 Regulation (EC) No. 1272/2008 (CLP).</b>	Not classified as dangerous for supply/use.
<b>2.2 Label elements (GHS)</b>	None.
Hazard pictogram(s)	None.
Signal word(s)	None.
Hazard statement(s)	None.
Precautionary statement(s)	None.
<b>2.3 Other hazards</b>	None.
<b>2.4 Additional Information</b>	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 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 <sub>2</sub> 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<sub>2</sub> 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

- |  |  |
|--|--|
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b> | 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. |
| <b>6.2 Environmental precautions</b>   | Avoid release to the environment. Prevent surface and ground water infiltration, as well as ground penetration.  |
| <b>6.3 Methods and material for containment and cleaning up</b>                | Sweep up carefully with non-sparking tools. Transfer to a lidded container for disposal or recovery.   |
| <b>6.4 Reference to other sections</b>   | None.  |
| <b>6.5 Additional Information</b>  | 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](http://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.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	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)



Respiratory protection



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)  
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
Explosive properties	Not explosive.
Oxidising properties	Not oxidising

### 9.2 Other information

None.

## SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Stable under normal conditions.
<b>10.2 Chemical stability</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions</b>	Stable under normal conditions.
<b>10.4 Conditions to avoid</b>	Stable under normal conditions. Electrostatic charge. Open flame, ignition sources. Decomposes at temperatures above 450°C.
<b>10.5 Incompatible materials</b>	Concentrated Sulphuric acid
<b>10.6 Hazardous Decomposition Product(s)</b>	When glowing and during combustion, CO/CO <sub>2</sub> 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 toxicological effects

#### 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.

Eye Contact

In the event of contact with molten product: Thermal Burns (molten polymer will adhere to skin and cause severe burns).

No data. Dust may have irritant effect on eyes.

Permanent damage is unlikely.

##### Hazard label(s)

Not known

##### Serious eye damage/irritation 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 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 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)**

UN number

Proper Shipping Name

Not classified as dangerous for transport.

Not applicable

Not applicable

**14.2 Sea transport (IMDG)**

UN number

Proper Shipping Name

Not classified as dangerous for transport.

Not applicable

Not applicable

**14.3 Air transport (ICAO/IATA)**

UN number

Proper Shipping Name

Not classified as dangerous for transport.

Not applicable

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

**15.2 Chemical Safety Assessment**

Not relevant for this material.

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: No major updates, general review and template update.

### 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](http://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](http://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.

**SDS Date of Preparation: 30 November 2021 – updated from SDS Revision 8 September 2014**

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