



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® 450FE compounds, with PTFE content as indicated by the grade name
CAS No.	Polyaryletherketone 31694-16-3 or 29658-26-2 Polytetrafluoroethylene 90002-84-0
EINECS No.	Polyaryletherketone Not available Polytetrafluoroethylene Not available
REACH Registration No.	Not available
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Identified use(s)	The materials are generally used for injection moulding and extrusion operations. This material is not for human implantation.
Uses advised against	
1.3 Details of the supplier of the safety data sheet	
Company Identification	Victrex plc, Victrex Technology Centre, Hillhouse International, Thornton-Cleveleys Lancs, UK FY5 4QD
Telephone	++ 44 (0) 1253 897700
Fax:	++ 44 (0) 1253 897701
E-Mail (competent person)	sds@victrex.com
1.4 Emergency telephone number	
Emergency Phone No.	++ 44 (0) 1253 897754

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
Preparation is not classified as hazardous in the sense of directive 1999/45/EC and 2006/121/EC.	
2.1.1 Regulation (EC) No. 1272/2008 (CLP).	Not classified as dangerous for supply/use.
2.1.2 Directive 67/548/EEC & Directive 1999/45/EC	Not classified as dangerous for supply/use.
2.2 Label elements	None.
2.3 Other hazards	None.
2.4 Additional Information	

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EC Classification No. 1272/2008

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

EC Classification No. 67/548/EEC

Hazardous ingredient(s)	%W/W	EC No.	REACH Registration No.	EC Classification and Risk Phrases
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 patient from exposure. Keep patient at rest and give oxygen if breathing difficult. If symptoms develop, obtain medical attention.
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 15 minutes while holding eyelids open.
Ingestion	May cause headache, nausea and vomiting. Call a physician (or poison control centre immediately). Do not induce vomiting wash out mouth with water. Call a physician (or poison control centre immediately).

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

Extinguish with carbon dioxide, dry chemical, foam or waterspray.

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/CO₂ 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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| 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 | |
| 6.5 Additional Information | |

SECTION 7: HANDLING AND STORAGE

- | | |
|--|---|
| 7.1 Precautions for safe handling | <p>General hygiene measures for the handling of chemicals are applicable. This is particularly important due to the presence of PTFE. Observe directions on label and instructions for use. Avoid conditions where decomposition products may be formed. When using do not smoke. 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</p> <p>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.</p> <p>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.</p> <p>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</p> |
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- 7.2 Conditions for safe storage, including any incompatibilities**
 Storage Temperature: Store products enclosed, in original packing.
 Storage Life: Store at room temperature.
 Incompatible materials: > 10 Year(s).
- 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**
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 (Granulate) |
| Colour. | Grey/Brown |
| Odour | Odourless |
| Odour threshold (ppm) | None |
| pH (Value) | Not applicable |
| Melting point (°C) / Freezing 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)	Not known.
Vapour density (Air=1)	Not known
Bulk Density (g/ml)	FE20 ~1.4
Solubility (Water)	Insoluble
Solubility (Other)	Not known
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, May form explosive dust clouds in air.
Oxidising properties	Not oxidising
9.2 Other information	None

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.
10.5 Incompatible materials	Concentrated Sulphuric acid
10.6 Hazardous Decomposition Product(s)	When glowing and during combustion, CO/CO2 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. 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	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, state or national legislation.
13.2	Additional Information	The 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 TSCA	Listed



Revision: 08.09.14 (Replaces 22.07.11)
Grade name : 450 FE

15.2 Chemical Safety Assessment

Not relevant for this material.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

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 under a Quality System approved to ISO 9001:2008 by Victrex Plc.

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.

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