

victrex®

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® 150FC and 450FC

> > compounds, with combined Carbon

Fibre, Graphite and PTFE content as

indicated by the grade namePowder:

Polyaryletherketone 31694-16-3 or 29658-26-2 CAS No.

Synthetic Graphite 7782-42-5 Carbon fibres 7440-44-0 Polytetrafluoroethylene 90002-84-0

EINECS No. Polyaryletherketone Not available

Synthetic Graphite 231-955-3 231-153-3 Carbon fibres 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.

Uses advised against This material is not for human implantation.

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. Not classified as dangerous for supply/use.

Directive 67/548/EEC & Directive 1999/45/EC 2.1.2

None.

2.2 Label elements



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2.3 Other hazards2.4 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. | - | - | - | 1 |

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.



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SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Unsuitable Extinguishing Media

5.2 Special hazards arising from the substance or mixture

5.3 Advice for fire-fighters

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

None.

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, Hexafluropropylene, Perfluoroisobutylene and Carbonyl Fluoride.

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

6.1 Personal precautions, protective equipment and emergency procedures

6.2 Environmental precautions

- 6.3 Methods and material for containment and cleaning up
- 6.4 Reference to other sections
- 6.5 Additional Information

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.

Avoid release to the environment.Prevent surface and ground water infiltration, as well as ground penetration. Sweep up carefully with non-sparking tools. Transfer to a lidded container for disposal or recovery.

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. 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

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 $^{\circ}$ C and increases rapidly above 360 $^{\circ}$ C. Processing above these temperatures yields a range of high toxicity and corrosive products and therefore is not recommended without the use of LEV.



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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

Storage Temperature

Storage Life

Incompatible materials

7.3 Specific end use(s)

Store products enclosed, in original packing.

Store at room temperature.

> 10 Year(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/m³) | STEL (ppm) | STEL (mg/m³) | Note: |
|---------------------------|---------|------------------------|--------------------------|---------------|-----------------|------------------|
| Dust. (general dust limit | - | - | 10 | | | Inhalable Dust |
| value) | | | 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

Respiratory protection

Eye/face protection Eye protection with side protection (EN 166)



Skin protection (Hand protection/ Other)

Impervious Gloves. Plastic or synthetic rubber gloves $\hbox{Additional information on hand protection} - \hbox{No tests have}$

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.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Solid (Granulate)

Colour. Black
Odour Odourless
Odour threshold (ppm) None

 $\begin{array}{ll} \text{pH (Value)} & \text{Not applicable} \\ \text{Melting point ($^\circ$C) / Freezing point ($^\circ$C)} & 343°C \\ \text{Boiling point/boiling range ($^\circ$C):} & \text{Not known.} \\ \text{Flash point ($^\circ$C)} & \text{Not known.} \\ \text{Evaporation rate} & \text{Not known.} \\ \end{array}$

Flammability (solid, gas) Solid, Non-flammable

Explosive limit ranges Not explosive. Vapour pressure (Pascal) Not known. Vapour density (Air=1) Not known FC 30 ~1.4 Bulk Density (g/ml) Solubility (Water) Insoluble Solubility (Other) Not known Partition coefficient (n-Octanol/water) Not known Auto ignition point (°C) 595℃ Decomposition temperature (°C) > 450 ℃

Explosive properties Not explosive, May form explosible dust clouds in

air.

Not known

Oxidising properties

Other information

Not oxidising
None

SECTION 10: STABILITY AND REACTIVITY

Viscosity (mPa. s)

9.2

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, Hexafluropropylene,

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.



Revision: 30.06.11 (Replaces 26.01.08) **Grade name : 150 FC, 450 FC**

Hazard label(s) Not known Serious eve 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
 12.2 Persistence and degradability
 12.3 Low toxicity to aquatic organisms.
 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) 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



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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 Not classified as dangerous for supply/use.

regulations/legislation specific for the

substance or mixture 15.1.1 EU regulations

Authorisations and/or restrictions on use None

15.1.2 National regulations None

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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