

## MATERIAL SAFETY DATA SHEET

### Section 1 : Identification of the Substance(s) and the Company

#### **VITASEAL Foam**

VSR300  
VSR600  
VSR 3/70

Vita Cellular Foams (UK) Ltd (Vitec Composite Systems)

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### Section 2 : Composition/ Information on Ingredients

Flexible polyurethane foams are produced by the reaction between a high molecular weight polyol and toluene diisocyanate (TDI) and/or diphenyl methane diisocyanate (MDI) in the presence of catalysts, surfactants and blowing agents, resulting in a flexible cellular product having a predominantly open-celled structure. VITASEAL foam is produced by the post treatment of the polyurethane foam with a water based latex compound. This compound contains a small loading of an inert powder filler, of low oral toxicity. VITASEAL foam is supplied in sheets, rolls or cut parts.

### Section 3 : Hazards Identification

The basic polyurethane polymer and therefore polyurethane impregnates are considered to be of low toxicity and should present no hazard from skin contact or by ingestion. VITASEAL foam contain additives of low oral toxicity and should present no hazard by skin contact or by ingestion.

### Section 4 : First Aid Measures

Skin contact	: If persistent irritation by dust occurs, refer to physician. Treat symptomatically.
Ingestion	: Refer to physician. Product is not considered toxic.
Eye contact (dust or solid)	: Irrigate eye for at least 15 minutes.
Inhalation (dust)	: Remove to fresh air. Refer to physician if breathing is difficult.

### **Section 5 : Fire Fighting Measures**

Extinguishing media	: Water (preferred), CO <sub>2</sub> , Foam, Dry Powder.
Extinguishing media to avoid	: None.
Protective equipment	: Self contained breathing apparatus.
Unusual fire hazards	: Burning foam can generate toxic fumes.

VITASEAL foams are highly flame retardant and even large ignition sources will not ignite them.

However, in a fire situation, although VITASEAL foams will not promote the spread of flame, they will, at high temperatures, release smoke and toxic gases. A high standard of general fire precautions, including adequate means of escape, are therefore most important.

Systems for detecting fire and/or initiating fire extinguishing appliances, e.g. sprinklers, the training of employees in the use of fire extinguishers and hose reels and the regular practise of fire drills will contribute to life safety and minimising fire damage. It is vitally important that employees are instructed on the action to take in the case of fire.

### **Section 6 : Accidental Release Measures**

No special measures are required.

### **Section 7 : Handling and Storage**

No special precautions. Storage at normal temperature and humidity is recommended. In areas where VITASEAL foams are stored with flammable materials a strict no-smoking policy should be applied.

### **Section 8 : Exposure Controls/Personal Protection**

It is not anticipated that any skin irritation when handling VITASEAL foams will occur.

Equipment such as band-knives, slitters, etc should have sharp, smooth edge blades for cutting foam. Saw-tooth type blades will produce dust.

Cutting with smooth edge band-knives will produce a large volume of dust, but adequate precautions should be taken to avoid a build up to nuisance levels, as this can cause a discomfort to nose and throat.

Cutting with saw-tooth blades will produce foam dust, which if allowed to accumulate, will produce a nuisance hazard. A high standard of housekeeping is required to remove dust deposits regularly. Local exhaust ventilation may be necessary to remove the dust formed, at source. Dust collectors used, must be fitted with explosion relief panels.

Hot-wire cutting should be avoided, this will release toxic fumes containing isocyanates into the atmosphere

### **Section 9 : Physical and Chemical Properties**

Form	: Cellular solid.
Colour	: Generally Grey or Black
Odour	: Odourless.
Solubility in water	: Insoluble.
Ignition Temperature	: > 200 <sup>0</sup> C

### **Section 10 : Stability and Reactivity**

Some VITASEAL foams are flame retardant, however, in a fire situation, VITASEAL foams will, at high temperatures, release smoke and toxic gases.

Keep away from naked sources of ignition.

Hazardous decomposition products are mainly CO<sub>2</sub>, CO, and NO<sub>x</sub>, but sufficient other substances (including isocyanates and HCN) render the gaseous decomposition products toxic by inhalation

### **Section 11 : Toxicological Information**

Effect on eyes : Mechanical irritation only.

Effect on skin : None in normal individuals.

### **Section 12 : Ecological Information**

In the aquatic environment, VITASEAL foam will present few problems due to its insolubility. In the soil environment, natural bacteria and fungi will aid biodegradation. Chlorofluorocarbons and other auxiliary blowing agents regulated by the Montreal Protocol and its subsequent amendments are not used in the manufacture of VITASEAL foam.

### **Section 13 : Disposal Considerations**

VITASEAL foam waste should be disposed of by an authorised licensed waste disposal contractor under the Control of Pollution Act 1974. Advice on disposal can be obtained from the Local Waste Regulation Authority or an equivalent body if outside the UK.

### **Section 14 : Transport Information**

The product is not classified as hazardous for any mode of transportation under current UK/EU/UN regulations

### **Section 15 : Regulatory Information**

No labelling is currently required for this material by the Classification, Packaging and Labelling of Dangerous Substances Regulations and corresponding EC/EU/UN directives.

### **Section 16 : Other Information**

Further and more specific information can be obtained by contacting the sales department at Vitec Composite Systems.

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The data given here is based on our current knowledge and experience. The purpose of this data sheet is to describe the product in terms of its safety requirements. The data does not signify any warranty with regard to the product's properties. Note also, it is considered that existing test methods and standards regarding flammability do not accurately predict the behaviour or performance of foam under actual fire conditions. Results from existing test methods refer to the effect of a small flame source on a specific sample tested under controlled conditions. Terms such as : "self-extinguishing", "flame retardant", or "zero burn rate" should only be interpreted with respect to the above test methods and standards, and do not reflect properties of products under actual fire conditions. It should be noted however that the term "flame retardant foam" is in common usage but serves only to distinguish foam formulated with recognised F.R. additives from that which does not.