

# Material Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

**Product Description** Silica Yarn

<u>Product Category</u>	<b>Silica Yarn</b>
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<b>Supplier</b>	Cheshire Ribbon Manufacturing Kingston Mills Manchester Road Hyde Cheshire	Date of Issue: March 2009 Prepared by: E Ashworth
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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

The products covered by this data sheet are made from silicon dioxide fibres. These are manufactured by chemically leaching continuous filament fibres made from borosilicate E glass (CAS-65997-17-3), a process which results in the production of hydrated amorphous silica. The filament diameters are uniform and are well above the maximum size considered to be respirable (approx. 3 micron). They will not sub-divide into fibrils of smaller diameter. The fibres contain small amounts of a hydrocarbon surface dressing (<2%).

## 3. HAZARD IDENTIFICATION

Silica Fabrics are classified as low hazard.

#### 4. FIRST AID MEASURES

- Inhalation** In the unlikely event of excessive inhalation of dust, (or fumes from a sustained fire situation), remove the individual to the fresh air. Obtain medical advice.
- Skin Irritation** In the unlikely event of skin irritation wash affected part with mild soap and water. If irritation persists obtain medical advice.
- Eye Irritation** Irrigate eyes if affected by entry of dust. Obtain medical advice if irritation persists.

#### 5. FIRE-FIGHTING MEASURES

- Flammability** The fabrics will not support combustion.
- Special Firefighting Procedures** In a sustained fire the fabrics will degrade. The surface dressings will give rise to fumes and smoke, including oxides of carbon. Appropriate personal protection and approved forms of self-contained breathing apparatus should therefore be worn in such situations.
- Extinguishing Media** Use that appropriate to the surrounding fire.

#### 6. ACCIDENTAL RELEASE MEASURES

Silica products damaged or made friable should be handled with the use of personal protective equipment.

#### 7. HANDLING AND STORAGE

It is highly unlikely that these fabrics will give rise to significant amounts of dust during normal handling and dust control measures will rarely be required in circumstances involving the fabrication of products from them. However, in accordance with good working practices, the production of debris should be minimised and the accumulation of dust should be removed by dust-less methods. No special storage conditions are required on health grounds.

#### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Workplace exposure to Silica mineral fibre dust of non-respirable size, should be kept to the minimum that is reasonably practicable and should not exceed the following limits:

Amorphous silica (Workplace Exposure Limits)		
Total	6 mg/m <sup>3</sup>	
Respirable	2.4 mg/m <sup>3</sup>	(Reference 1)
Cristobalite (Workplace Exposure Limit)		
Total	0.3 mg/m <sup>3</sup>	

Dust levels are only likely to rise above the exposure limit if the fabrics are handled extremely vigorously or subjected to harsh mechanical abrasion. In such circumstances the provision of local exhaust ventilation should be considered. Should this not be practicable, protective masks approved for use against irritant dust should be worn in accordance with their manufacturers instructions.

To reduce the chance of skin irritation when handling silicon dioxide fibre based materials, overalls of a close weave material should be worn. Gloves, arm cuffs or barrier creams may also be advantageous in some circumstances. Emphasis should, however, be placed on personal hygiene, ensuring that hands and arms are washed with copious quantities of cool running water to remove any loose fibres before application of soap for washing purposes.

Where there is a possibility of fibre entering the eye, suitable eye protection should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Weights</b>	See appropriate Product Data Sheets.
<b>Appearance</b>	The fabric is white in colour
<b>Odour</b>	The products have no discernible odour.
<b>Solubility in Water</b>	Insoluble
<b>Melting Point</b>	See Section 10
<b>Boiling Point</b>	Not applicable
<b>Vapour Pressure</b>	Not applicable
<b>Percent Volatile (vol.)</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable

## 10. STABILITY AND REACTIVITY

The products are designed for use at high temperature (up to 950°C), at temperatures above 900°C some changes will occur giving rise to the formation of cristobalite.

Subject to the above, the products are considered to be stable under normal conditions of use.

## 11. TOXICOLOGICAL INFORMATION

### Primary Routes of Potential Exposure

Inhalation, skin and eye contact.

### Effects of Over-exposure (Acute and Chronic)

<b>Inhalation (Dust)</b>	In view of the diameter of the continuous filaments used for the construction of this fabric, any Silicon dioxide dust generated is not generally considered to be respirable. For the majority of operations associated with the handling and use of these fabrics, the quantity of dust generated is expected to be negligible. Fabrics subjected to harsh mechanical abrasion may give rise to dust that could be irritating to the upper respiratory tract. Such effects are usually transitory leaving no permanent damage.
<b>Fume</b>	Contact with molten metal or flame may give rise to localised emission of fume.
<b>Skin Irritation</b>	Some people who come into contact with silicon dioxide fibres experience reddening and itching of the skin. Those who are subject to this effect are most likely to experience it when handling the materials for the first time or after a period of no contact as hardening of the skin usually occurs. People with a history of skin complaints may be particularly susceptible and, in general, should not come into contact with these fabrics.
<b>Eye Irritation</b>	Entry of fibrous dust into the eye will cause foreign body irritation.
<b>Carcinogenicity</b>	Silicon dioxide is not classified as a carcinogen.

## 12. ECOLOGICAL INFORMATION

These products are not associated with any known ecological problems.

## 13. DISPOSAL CONSIDERATIONS

The disposal of waste should be carried out in accordance with national or regional directives - normally by burial in controlled industrial landfill sites.

## **14. TRANSPORT INFORMATION**

All Silica fabric products are labelled as in [Section 2](#) and transported double wrapped to prevent possible damage and water ingress.

## **15. REGULATORY INFORMATION**

No specific regulatory information is applicable to these fabrics.

## **16. OTHER INFORMATION**

### **References**

1. Health & Safety Executive Guidance Note EH 40/2005 Workplace Exposure Limits 2005

For further information contact:

CHESHIRE RIBBON MANUFACTURING

### **NOTE:**

This Data Sheet relates to the material as supplied. The information contained herein is given in good faith, but no liability will be accepted by the Company in relation to same. The acquisition of additional information may necessitate revisions to parts or all of this Data Sheet, and such information will be supplied as it becomes available.

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