



## MATERIAL SAFETY DATA SHEET

### GLASS CLOTH, EMULSION CHOPPED STRAND MAT, WOVEN ROVING, STITCH CHOPPED STRAND MAT, POWDER CHOPPED STRAND MAT, STITCH COMBO MAT, WOVEN ROVING COMBO MAT

Effective Date : August 2012

Page 1 of 3

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## I. Identification

**SUPPLIER:** Norski Holdings Ltd, 10 Northpoint Street, Plimmerton, 5024 New Zealand

**PRODUCT NAME:** Glass Cloth, Woven Roving, Stitch Chopped Strand Mat, Power Chopped Strand Mat, Emulsion Chopped Strand Mat, Stitch Combo Mat, Woven Roving.

**CHEMICAL NAME:** Low Alkali, Borosilicate Glass Filament with an organic polymer size.

**FORMULA:** Not applicable.

**CAS NO:** 6599-17-3

**MOLECULAR WEIGHT:** Not applicable

**SYNONYMS:** Fibreglass, Glass Fibre, Glass Filament, Reinforced Fibre.

**PRODUCT USE:** Fibreglass is an inorganic non-metal material and is used as reinforcement for thermoplastic and thermosetting resins.

## II. Physical and Chemical Properties

**APPEARANCE:** White fibres (filaments) with virtually no odour.

**FLASH POINT:** Not applicable.

**pH VALUE:** Not applicable.

**IGNITION TEMPERATURE:** Not applicable.

**EXPLOSION UPPER LIMIT:** Not applicable.

**EXPLOSION LOWER LIMIT:** Not applicable.

**MELTING POINT:** >800°C.

**BOILING POINT:** Not applicable.

**RELATIVE DENSITY:** 2.6 times that of water.

**RELATIVE VAPOUR DENSITY:** Not applicable.

**VAPOUR PRESSURE:** Non-volatile

**VAPOUR DENSITY:** Not applicable

**PERCENT VOLATILE BY VOLUME:** Not applicable

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 2.54

**SOLUBILITY IN WATER:** Below 0.01%

**EVAPORATION RATE (N-BUTYL ACETATE – 100):** Not applicable

Product Name	Glass, %	Size, %	Binder, %	Water, %
Glass Cloth	≥99.2	≤0	/	/
Emulsion Chopped Matt	≥99.2	≤0.8	≤2.2	/
Woven Roving	≥99.2	≤0.8	/	/
Stitch Chopped Strand Mat	≥91.7	≤1.0	≤7.3	/
Power Chopped Strand Mat	≥93.7	≤0.7	≤5.6	/
Stitch Combo Mat	≥96.8	≤1.0	≤2.2	/
Woven Roving Combo Mat	≥96.8	≤1.0	≤2.2	/

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Page 2 of 3

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### III. Fire and Explosion Hazard Data

**FLASH POINT:** May emit smoke briefly between 120°C – 180°C but is unlikely to flash

**FLAMMABLE LIMITS IN AIR % BY VOLUME:** Not applicable, will not burn

**EXTINGUISHING METHOD:** Water (for the packaging material), dry chemical, foam, carbon dioxide.

**HAZARDOUS COMBUSTION PRODUCTS:** Primary combustion products are carbon monoxide, hydrogen, carbon dioxide and water. Other undetermined compounds can be released in small quantities.

**SPECIAL FIRE-FIGHTING PRECAUTIONS:** Fire-fighters must use self-contained breathing apparatus and wear full protective gear.

**REACTIVITY DATA:** Stable, non-reactive and virtually inert

### IV. Health Hazard Information

**EXPOSURE STANDARD (NOHSC-WORKSAFE):** 2mg/m<sup>3</sup> is proposed by WorkSafe to protect against irritation effects to the upper respiratory tract (NOHSC 1995). These reinforcement fibres have a filament diameter greater than 10 microns and are not classified as respirable.

**EYE:** Dust or filaments can cause irritation. Wash with running water using eye bath or wash bottle. If irritation persists, seek medical attention.

**SKIN:** Can irritate. This is largely confined to cutting, trimming, and grinding operations and often diminishes with repeated exposure. Wash using warm water and mild soap, sluicing filaments/fibres off skin. Do not scrub hard, or use creams or ointments except under medical direction.

**INHALED:** The fibres are not respirable. Dust masks may be helpful in reducing upper respiratory tract irritation where high levels of airborne fibres are present.

**INGESTION:** Non toxic. Ingestion of the material is unlikely, however extensive studies have revealed no serious effects, but may cause gastrointestinal disturbance. Rinse mouth repeatedly with water.

**OTHER HEALTH HAZARDS:** There is no credible evidence of other health problems. Exposure to airborne fibre/filament during operations such as chopped strand application, grinding, trimming and sawing should be kept as low as is reasonably practicable to avoid irritation effects.

**EMERGENCY:** 0800 POISON (764 766)

**HIGHEST PERMISSIBLE CONCENTRATION:**

National and international hygiene standards:

Component	Permissible Exposure Limit of OSHA (8-hr Average Weight)	Permissible Exposure Limit of ACGIH (8-hr Average Weight)
Non-respirable fibres and particulates	5 mg/m <sup>3</sup> (total dust)	5 mg/m <sup>3</sup> (inhalable fraction)
Respirable particulates	5 mg/m <sup>3</sup> (respirable fraction)	3 mg/m <sup>3</sup> (particles not otherwise classified)
Size of respirable particulates	None established	None established

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## V. Safe Handling Information

**SPILLAGE :** Dampen with water and sweep up.

**DISPOSAL:** Contain in plastic garbage bags, Dispose of as normal waste, subject to conforming to state legislation.

**HANDLING AND STORAGE:** Store in a dry place. Try to prevent the packing material from being damaged and keep the product inside the packing material to minimise the generation of dusts. Maintain a clean work environment and avoid generation of fibreglass fragments from improper handling.

**SPECIAL PROTECTION INFORMATION:** \*Work clothing should be worn to minimise fibrous glass contact with skin, especially neck, arms and axillae. Clothing should be loose at the waist and neck to lessen chaffing. Protective gloves may be useful to avoid skin irritation.

**RESPIRATORY PROTECTION:** When handling rovings or yarn in quantity, a simple dust mask may be useful in preventing any nose or throat irritation. Disposable masks such as 3M 8500 or for better protection 3M 8710 or Moldex 2200 or equivalents may be appropriate. When using chemicals, solvents or any other volatile agents in processing of yarn or rovings into finished product, the respiratory protection and ventilation is determined by the need for protection against these agents. Where very high levels of airborne fibre are generated, positive pressure respirators with full face masks may provide more satisfactory respiratory protection and protection for eyes and skin. This type of equipment can provide protection against volatile organic chemicals. Advice should be sought from competent authorities.

**VENTILATION:** Depending on the nature of the operation, with the objective of extracting any airborne fibre as close as possible to the point where it is generated by using local suction ventilation eg elephant-trunk types and providing general extraction ventilation in process areas eg trim shops. Engineering advice on ventilation is advisable where large amounts of airborne fibre could be generated.

**EYE PROTECTION:** Appropriate eye protection eg goggles, should be worn where there is likelihood that airborne filament fibres may contact eyes.

**ENGINEERING CONTROL:** Production areas are closed off and a required relative humidity is maintained.

**HAND PROTECTION:** Wear gloves. Skin irritation occurs primarily at the contact areas such as wrists and between the fingers.

**BODY PROTECTION:** Normal loose working clothing (long-sleeved shirts and long pants) is recommended. Skin irritation occurs primarily at the contact areas such as around the neck and waist.

\* The information herein is given in good faith but no warranty, express or implied, is made.

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