POLYSTER NETS **GARWARE WALL ROPES LTD**

Material Safety Data Sheet

1. Identification of the substance/preparation and of the Company/Undertaking

Product Name:	**POLYSTER NETS**
Company Identification:	Garware Wall Ropes Ltd, Plot No. C-1, MIDC Wai, Dist.-Satara Pin-412 803, Maharashtra, India
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Emergency Telephone Number	+91 2167 308300
Use of substance / Preparation:	Industrial purpose only.
2. Hazards Identification:	This product is not classified as dangerous for supply & use. The preparation does not meet the criteria for classification in accordance with Directive 1999/45/EC.

3. Composition / Information on Ingredients:

Polymer (Polyethylene terephthalate) CAS NO. 25038-59-9 = 88 to 100%
Additives (lubricants, emulsifiers and anti-electrostatics)= 0 to 10 %
Color Pigments = 0 to 2 %

HAZARDOUS INGREDIENTS	%WW	CAS NO.	EC NO.	EC CLASSIFICATION
None				

4. First Aid Measures:

4.1 Inhalation:	Not specifically concerned.
4.2 Skin Contact:	Wash with soap and water. If irritation develops, consult a physician
4.3 Eye Contact:	Eyes should be washed immediately with plenty of water. If irritation persists, consult a physician.
4.4 Ingestion:	Do not induce vomiting. Call in a physician and show him this data sheet.
4.5 Further Medical Treatment:	Unlikely to be required but if necessary treat symptomatically.

5. Fire - Fighting Measures:

5.1 Suitable Extinguishing Media	As appropriate for surrounding fire. Extinguish preferably with dry chemical powder, CO2, or water spray (See 5.2 below).
5.2 Unsuitable Extinguishing Media	Do not use water jet or water spray if fire is caused by an electrical short circuit.
5.3 Fire Fighting Protective Equipment	Wear self-contained breathing apparatus, protective clothing and headgear to prevent

	contact with skin & eyes.
5.4 Hazardous Decomposition Product(s)	Oxides of Carbon (CO, CO2) and low-molecular-weight organic compounds may result depending on temperature and air supply during fire. On complete combustion, the major products formed are carbon dioxide & water.
5.5 Other	Low fire hazard. Fiber dust, fly & fumes may represent a fire hazard at sufficient concentrations.
6. Accidental Release Measures:	
6.1 Personal Precautions	Use normal personal protection equipments.
6.2 Environmental Exposure Controls	In case of accidental spills, do not allow entering drains and waterways. When picked up, treat material as prescribed under section 13 (Disposal considerations).
6.3 Methods for cleaning up	Clean up by vacuuming, physical picking or mechanical means to minimize fibre fly exposure. If cleaning up involves the use of water, the wastewater should be given the appropriate treatment in an effluent treatment plant, in line with local regulations.
7. Handling & Storage:	
7.1 Handling	Normal handling and processing does not require special technical protective measures. Avoid formation of dust and fiber fly. Accumulation of fiber dust and fly may represent at sufficient concentrations a fire and explosion hazard. Remove ignition sources. Beware of electrostatic charges. If subsequent processing involves the use of water, the wastewater should be given the appropriate treatment in an effluent treatment plant, in line with local regulations.
7.2 Storage	Bales must be stored in line with existing provisions. Existing fire protection measures have to be followed. Do not store near flame, ignition sources, direct sunlight or incompatible materials. Maintain good housekeeping to control fiber fly accumulations.
Storage Temperature:	Ambient.
Specific use:	Industrial purpose only.
8. Exposure Control/ Personal Protection:	
Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures.	
OCCUPATIONAL EXPOSURE LIMITS: Comply with national occupational threshold values for dust. According to TRGS	

900 (Germany) there are two values:

a) 3 mg/m3 - for fine dust

b) b) 10 mg/m3 - for coarse dust

8.1 Respiratory Protection:	No special measures required, except for fire or insufficient hood suction / fresh air supply (see 4 and 5).
8.2 Hand protection:	Protective gloves are required while cutting bales/ carton straps or fiber waste.
8.3 Eye Protection:	Wear safety glasses (e.g. especially while cutting bale or carton straps).
8.4 Skin Protection:	No special measures required. Fibers that are processed at high speeds may cause abrasions or cuts. Appropriate protective measures are recommended.
8.5 Environmental precautions	Exhausted fiber fly, dust and finish decomposition products shall be kept back efficiently by adequate filter systems.

9. Physical/Chemical Properties:

Form:	Solid	Relative density:	Low: 1.3, High: 1.4 g/cm3
Boiling Point	N/A	Decomposition Temperature:	>300° C
Vapor Pressure (mm Hg)	N/A	Melting Point	Low: 240° C High: 260° C
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility:	Insoluble in common solvents	Ph value:	N/A
Odor:	Odorless	Oxidizing properties	None

Flash Point (Method Used):	NA	Flammability:	LFL: N/A UFL: N/A
Explosive Properties		Not explosive. Unlikely to represent a dust hazard under normal handling conditions.	

10. Stability & Reactivity:

10.1 Chemical Stability	Stable under normal conditions.
10.2 Conditions to avoid	Material is stable under normal conditions. Temperatures above 300 °C lead to thermal decomposition (see also 5.4).
10.3 Materials to avoid	Strong oxidizing agents as well as strong acids and caustic (they will decompose polyester). Acetic anhydride, acetone, aniline, benzene, chloroform, chromic acid, cyclohexanone, dimethyl formamide, dioxan, ethyl acetate, methyl ethyl ketone, methylene chloride, phenol, tetrahydrofuran, trichloroethylene, triethanolamine, caustic soda.
10.4 Hazardous Decomposition Product(s)	Above the decomposition temperature, the major volatiles will be terephthalic acid, oligomers of PET, carbon dioxide, carbon monoxide, acetaldehyde, and

	low molecular weight alcohols/ aldehydes. If heated to 150-250 °C during processing, the fiber lubricants can degrade and generate off gases, which may contains small amounts of chemicals such as aldehydes, alcohols, acetic acid, acetone, etc. We are not aware of chemicals such as these reaching concentrations that present a serious health hazards. However, information on toxic effects and recommended exposure limits of these and other chemicals can be found in the most recent edition of the ACGIH documentation of threshold limit values. When Polyester Netting is burned, no unusual combustion gases have been observed, and its combustion products are similar to those of other organic materials composed of the same elements.

11. Toxicological Information:

Low toxicity under normal conditions of handling and use

11.1 Ingestion	Low oral toxicity.
11.2 Inhalation	Low acute toxicity. Dusts and vapours or fumes evolved during thermal processing may cause irritation to the respiratory system.
11.3 Skin Contact	No evidence of irritant effects from normal use.
11.4 Eye Contact	Dust may have irritant effect on eyes. Permanent damage is unlikely.
11.5 Long Term Exposure	Chronic effects are unlikely.

12.Ecological Information:

12.1 Environmental fate & distribution: The product is insoluble in water. Due to their negligible solubility in water and high molecular weight, they are expected to have a low BOD and will not cause oxygen depletion in aquatic systems.

12.2 Persistence and Degradation: The product is non-biodegradable.

12.3 Toxicity: Low toxicity to aquatic organisms.

12.4 Effect on Effluent Treatment: Unlikely to affect biological treatment processes.

13. Disposal Considerations:

13.1 Regulatory information: Do not allow entering drains, sewers or watercourses. Disposal should be in accordance with local, state or national legislation.

13.2 Recommended: Disposal of Polyester product does not pose any specific danger. It is recommended that Polyester product, including packaging material to be recycled. If recycling is not possible, Polyester waste can be disposed of in a suitable refuse installation or incinerated subject to local regulations.

14. Transport Information:

International Transport Regulations: Not classified as dangerous for transport

UN No.: NA

Road/Rail (ADR/RID): Not applicable.

Class/Packing Group: Not applicable.

IMDG Class: Not applicable.

ICAO/IATA Class: Not applicable.

15. Regulatory Information:

EC Classification: Not classified as dangerous for supply/use.
Hazard Symbol: Not applicable.
Risk Phrases: Not applicable.
Safety Phrases: Not applicable.

16. Other Information:

This Material Safety Data Sheet was prepared in accordance with Directive 2001/58/EC and EC Regulation (EC) No.1907/2006. This Material Safety Data Sheet and the health, safety and environmental information it contains are intended to provide a summary of our knowledge and guidance regarding use of the designated Product. Its contents are offered in good faith as accurate and complete as of the date specified below, but without guarantee. The data herein applies only to the Product sold by entities of the Garware Wall Ropes LTD group and not to products sold by others. It relates only to the Product and does not relate to its use in combination with any other product or material or in any process. Local laws and regulations and conditions of use and suitability of the product for particular uses are beyond the control of Garware; all risks of use, storage, handling, transportation and disposal of the Product are therefore assumed by the user and Garware expressly disclaims all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the Product. Garware shall not be responsible for any damage or injury resulting from abnormal use of the Product, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the Product.

Appropriate warnings and safe handling procedures should be provided to all handlers and users. In the case of a user in the European Union, as per Article 34 of REACH Regulation (EC) No. 1907/2006, user shall communicate to Garware any new information on hazardous properties of the Product and/or new information relevant to risk management measures for the identified uses. Alteration or re-publication of this document in whole or part is strictly prohibited.

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