

Polyethylene Naphthalate Fiber, A-701

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Polyethylene Naphthalate Fiber, A-701

OTHER / GENERIC NAMES: PEN, Poly(ethylene-2,6-naphthalene dicarboxylate)

PRODUCT USE: Tire & Industrial fiber. This fiber is not intended for uses other than industrial, e.g., in the food handling industry, or in the medical or surgical sector. Please contact Performance Fibers, Inc. if there is uncertainty of the suitability of the intended use.

MANUFACTURER: Performance Fibers, Inc.
707 East Main Street
Richmond, VA 23219

FOR MORE INFORMATION CALL:
(Monday-Friday, 8:00 am - 5:00 pm)
Product Safety Department
704-636-6000 X-4375

IN CASE OF EMERGENCY CALL:
(24 Hours/Day, 7 Days/Week)
919-542-2200

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Polyethylene Naphthalate	25853-85-4	> 99

Trace impurities and additional material names not listed above may also appear in the Regulatory Information section (#15) towards the end of the MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Yellowish-white solid fiber. There are no hazards associated with the product for which first aid is required.

POTENTIAL HEALTH HAZARDS

SKIN: May cause mechanical irritation.
EYES: May cause mechanical irritation.
INHALATION: Not respirable in this form. Thermal processing fumes and vapors may cause irritation to the nose and throat. Dust should be considered as a nuisance dust (see Section 8).
INGESTION: Not a probable route of exposure.
DELAYED EFFECTS: None known

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section*			

4. FIRST AID MEASURES

SKIN: If irritation develops, wash skin with soap and water. If discomfort continues, obtain medical attention.

EYES: If irritation develops, flush eyes with running water for 15 minutes. If discomfort continues, obtain medical attention.

INHALATION: For processing vapors, if irritation develops, remove person to fresh air. If discomfort persists, seek medical attention.

INGESTION: Not a probable route of exposure.

ADVICE TO PHYSICIAN: No specific advice. Treat symptomatically.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	Not determined
FLASH POINT METHOD:	Not applicable
AUTOIGNITION TEMPERATURE:	Not known.
UPPER FLAME LIMIT (volume % in air):	Not known.
LOWER FLAME LIMIT (volume % in air):	Not known.
FLAME PROPAGATION RATE (solids):	Not known.
OSHA FLAMMABILITY CLASS:	Not applicable.

EXTINGUISHING MEDIA:
 All standard agents may be used.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
 None.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:
 Wear self-contained breathing apparatus meeting NIOSH standards. Avoid excessive inhalation of smoke or potential thermal decomposition products.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (Always wear recommended personal protective equipment.)
 Sweep or vacuum and place in containers for disposal to an approved landfill or reuse.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING: (Always wear recommended personal protective equipment.)
 No special handling requirements.

STORAGE RECOMMENDATIONS:
 No special storage requirements.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Mechanical ventilation should be used during processing to remove any dusts, mists, or vapors which may be generated.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION:

Protect against potential physical hazards such as contact with yarn moving at high speed, etc.

EYE PROTECTION:

Safety glasses are recommended during processing.

RESPIRATORY PROTECTION:

None normally required. A dust mask meeting NIOSH standards should be worn if dusty conditions exist.

ADDITIONAL RECOMMENDATIONS:

None required.

EXPOSURE GUIDELINES (Guidelines exist for the following ingredients)

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
No ingredients listed in this section*			

* = Limit established by Performance Fibers, Inc. for internal use.

** = Workplace Environmental Exposure Level (AIHA).

*** = Biological Exposure Index (ACGIH).

Other exposure limits for the decomposition products normally associated with product use are as follows:

The dust should be considered a nuisance dust:

ACGIH TLV: 10 mg/m³ total dust

OSHA PEL: 15 mg/m³ total dust; 5 mg/m³ respirable dust

See Section 16 regarding finish mists.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Yellowish-white solid fiber.	
PHYSICAL STATE:	Solid	
ODOR:	No specific odor.	
MOLECULAR WEIGHT:	>20,000	
SPECIFIC GRAVITY (water = 1.0):	>1.3	
CHEMICAL FORMULA:	(C ₁₄ H ₁₀ O ₄) _x	
SOLUBILITY IN WATER (weight %):	Insoluble	
pH:	Not applicable	
BOILING POINT:	Not applicable.	
MELTING POINT:	255°C	
VAPOR PRESSURE:	Not applicable.	
VAPOR DENSITY (air = 1.0):	Not applicable	
EVAPORATION RATE:	Not applicable	COMPARED TO: Not applicable
% VOLATILES:	Not applicable	
FLASH POINT:	Not determined	

(Flash point method and additional flammability data are found in Section 5.)

10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):

Normally stable

INCOMPATIBILITIES:

None known.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products may include ethylene glycol, carbon dioxide, carbon monoxide, low molecular weight alcohols, low molecular weight aldehydes, and other C, H, and O compounds of varying chemical structure and molecular weights.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Note: Polyethylene Naphthalate tire yarns may be coated with adhesion activated finish preparations similar to those used on polyester tire yarns. Although no data are currently available on Polyethylene Naphthalate fibers, Polyester yarns treated with Performance Fibers, Inc. adhesion activated finish preparations did not cause irritant or allergic dermatitis in human studies (human repeat insult patch tests).

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:

Not known.

OTHER DATA:

Note: Polyethylene Naphthalate tire yarns may be coated with adhesion activated finish preparations similar to those used on polyester tire yarns. Although no data are currently available on Polyethylene Naphthalate fibers, Polyester yarns treated with Performance Fibers, Inc. adhesion activated finish preparations did not cause mutagenic activity in bacterial studies (Ames Spot Test).

If the product is to be used for special applications, e.g., in the food industry, for hygiene, or in the medical or surgical sector, please first contact Performance Fibers, Inc..

12. ECOLOGICAL INFORMATION

Not known. Considered to be inert.

13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded?

No

If yes, the RCRA ID number is:

Not applicable

OTHER DISPOSAL CONSIDERATIONS: Dispose of as non-hazardous waste in accordance with local, state and federal regulations.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

US DOT PROPER SHIPPING CLASS:
US DOT HAZARD CLASS: Not regulated
US DOT ID NUMBER: Not applicable

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: Polymer is listed on the TSCA Inventory.
OTHER TSCA ISSUES: None

SARA TITLE III / CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
No ingredients listed in this section.		

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: None

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

<u>INGREDIENT NAME</u>	<u>COMMENT</u>
None	

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<u>INGREDIENT NAME</u>	<u>WEIGHT %</u>	<u>COMMENT</u>
None		

ADDITIONAL REGULATORY INFORMATION:

None.

WHMIS CLASSIFICATION (CANADA):

Not a controlled product.

FOREIGN INVENTORY STATUS:

Not determined.

16. OTHER INFORMATION

CURRENT ISSUE DATE: December 2008

PREVIOUS ISSUE DATE: October 2008

OTHER INFORMATION: PEN fibers are coated with minor quantities of finish oils. Textile processes may volatilize portions of these finishes and produce visible misting in the workplace. Ventilation is recommended to minimize exposure to such finish mists, which should not exceed a concentration of 5 mg/m³.

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Disclaimer added and Product Safety Department telephone number changed

OTHER INFORMATION: Disclaimer

“The information in this Material Safety Data Sheet relates only to the specific material designated and may not apply where such material is used in combination with any other material or in any process. This information is to the best of our knowledge based on accurate and reliable information, but may be subject to revision as new information becomes available. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. Each user is responsible for satisfying itself as to the suitability of such information for its own particular use; therefore additional safety precautions may be required