



MATERIAL SAFETY DATA SHEET

Product: Nylon elastomer monofilament

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAMES: NX-1042 (Blue)

MANUFACTURER: Shakespeare Company, LLC
 Operating as jARDEN Applied Materials
 6111 Shakespeare Road
 Columbia, South Carolina 29223
 Telephone: 803-754-7011
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EMERGENCY PHONE NUMBER: 1-800-535-5035 INFOTRAC

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME:	Weight (%)	CAS NUMBER
Polyether block polyamide copolymer	>99	84732-38-7
Blue Colorant	<1	

The information provided below on the hazardous pigments and additives in the colorant applies to them in the pure dry form. In the filament the pigments and additives are encapsulated in plastic; and therefore, the likelihood of exposure is much less, even to the point of negligible. We therefore consider the level of hazard to be negligible.

Description	OSHA	ACGIH	CAS Number
	PEL mg/m ³	TLV mg/m ³	
Titanium Dioxide (Dust)	10.0	10.0	<0.08 13463-67-7
Aluminum Hydroxide (as Al)	N.E.	10.0	<0.01 21645-51-2
Silicon Dioxide, Amorphous	6.0	10.0	<0.01 7631-86-9
Barium Sulfate (Dust)	5.0	10.0	<0.40 7727-43-7
Kaolin (Respirable)	5.0	2.0	<0.02 1332-58-7
Mica (Mineral)	3.0	3.0	<0.01 12001-26-2
Silica, Crystalline Quartz	0.1	0.1	<0.02 14808-60-7

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Synthetic plastic fiber with no significant odor. Fiber is not considered hazardous at ambient conditions. Do not heat above melt point, 295° F/146° C. Exposure to fire will release irritating toxic fumes and vapors.

Potential Health Effects:

Eyes: Product fines may cause mechanical irritation; eyes should be washed out immediately with water

Skin: Mechanical irritation may occur from particles

Inhalation: Dust may produce mechanical irritation to mucous membranes. Move to fresh air. Get medical attention if symptoms persist

Ingestion: May cause gastrointestinal discomfort

Ingredients found on one of the OSHA/WHIMS designated carcinogen lists are provided below:

INGREDIENT NAME:

NTP STATUS

None

IARC STATUS

None

OSHA LIST

None

ACGIH STATUS

None

4. FIRST AID MEASURES

Skin: Not likely to be hazardous; for irritation, flush with cool running water

Eyes: If irritated, flush with plenty of water; Seek medical attention if condition persists

Inhalation: Remove to fresh air; seek medical attention if condition persists

Ingestion: If product is ingested, seek medical attention

Advice to physician: There are no known chronic effects associated with this material.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: (ASTM D1929) Not determined

Flash Point Method: Not applicable

Auto-ignition Temperature: Not determined

Upper Flame Limit (volume % in air): Not applicable

Lower Flame Limit (volume % in air): Not applicable

Flame Propagation Rate (solids): Not applicable

OSHA Flammability Class: Not applicable; solid material

Extinguishing Media: Use any standard agent (water spray, dry chemical, foam, or carbon dioxide)

Fire fighters should wear self contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE (always wear recommended personal protective equipment): Sweep or vacuum material and place in container for proper disposal.

No special precautionary measures should be needed under anticipated conditions of use.

7. HANDLING AND STORAGE

Normal Handling (Always wear recommended personal protective equipment): Avoid processing material above melt point, 295° F/146° C. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing. Process material using adequate ventilation.

Storage Recommendations: To maintain product quality, store in cool, dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Good manufacturing practice and good industrial hygiene practice recommend the use of local exhaust ventilation at process emission points.

Personal Protective Equipment:

Skin Protection: Wear gloves when handling fiber. Wash hands after use.
Eye Protection: Wear safety glasses with side shields as a minimum.
Respiratory Protection: If dusty conditions exist, use a mechanical filter respiratory approved by NIOSH.

Additional recommendations:

Exposure Guidelines: Operators performing grinding and machining of product should be reviewed to assure particulate levels are kept below recommended standards.

Ingredient Name:	ACGIH TLV	OSHA PEL
Product dust	10 mg/m ³ total dust, TWA	15 mg/m ³ total dust, TWA
Respirable dust		5 mg/m ³ , TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Filament
Physical State: Solid
Odor: Minimal odor
Specific Gravity: 1.01 (H₂O = 1)
Solubility in Water: Negligible
pH: Not Applicable
Boiling Point: Not Applicable
Melting Point: 295° F/146° C
Vapor Pressure: Negligible
Evaporation Rate: Not Applicable
% Volatile: Not applicable
Flash Point: Not Applicable
Color: Blue

10. STABILITY AND REACTIVITY

Normally Stable (Conditions to Avoid): Product is stable under ordinary conditions of use and storage. Avoid exposure to open flame or temperatures exceeding melt point, 295° F/146° C. Consult technical service personnel for recommended processing conditions.

Incompatibilities: Contact with acids and strong oxidizing agents may cause a low energy release

Hazardous Decomposition Products: Thermal breakdown may involve a complex mixture of compounds including, but not limited to: Oxides of carbon and nitrogen.

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Immediate (Acute) Effects: Low hazard for usual industrial handling. Results of single exposure studies conducted on representative polyether block polyamide copolymers indicate that these materials are practically non-toxic if swallowed (rat LD50 > 2,500 to > 4,000 mg/kg), non-irritating to rabbit skin and slightly irritating to rabbit eyes. No skin allergy was observed in guinea pigs following skin exposure.

Delayed (Subchronic and Chronic) Effects: No genetic changes were observed in tests using bacteria or animals.

Other Data: Not listed as a carcinogen

12. ECOLOGICAL INFORMATION

No ecotoxicological information is available for this product. These products are not considered degradable or toxic in terms of their physical impact. Material is expected to have low aquatic toxicity because of its insolubility in water.

13. DISPOSAL CONSIDERATIONS

Is the unused product a RCRA hazardous waste if discarded? No

If yes, the RCRA ID number: Not Applicable

Other Disposal considerations: Preferred options for disposal are recycle, incineration with energy recovery and landfill. Treatment, storage, transportation, and disposal of product must comply with applicable federal, state, and local disposal laws or regulations.

14. TRANSPORTATION INFORMATION

US DOT (Department of Transportation): Not Regulated

Canadian TDG (Transportation of Dangerous Goods): Not Regulated

15. REGULATORY INFORMATION

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

TOXIC SUBSTANCES CONTROL ACT (TSCA):

TSCA INVENTORY STATUS: All components are listed on the TSCA Inventory or are exempt under PMN regulations.

OTHER TSCA ISSUES: None

SARA TITLE III/CERCLA:

SARA/CERCLA HAZARDOUS SUBSTANCES:

Reportable Quantities (RQ) and/or "Threshold Planning Quantities (TPQs) do not exist for this product.

16. OTHER INFORMATION

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

Addition of Blue Colorant; Changed Company Name & logo.

NATIONAL FIRE PROTECTION AGENCY (NFPA) AND NATIONAL PAINT AND COATINGS ASSOCIATION (NPCA) RATING CLASSIFICATION:

	<u>NFPA</u>	<u>HMIS</u>
Health	0	0
Flammability	1	1
Reactivity	0	0

Disclaimer: This product is NOT intended for use in medical implants.

The information contained herein is presented in good faith and is accurate to the best of our knowledge. Shakespeare can not guarantee that any hazards listed herein are the only ones which may exist. Shakespeare makes no warranty of any kind, expressed or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the material for their use. User must meet all applicable safety and health standards.

Refer to the appropriate Shakespeare bulletin for specific processing guide lines and good manufacturing practices.

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