

March 23, 2016

Product Declaration**Shakespeare® Engineered Nylons**

Shakespeare Company LLC, also known as Jarden Applied Materials (JAM) offers the following portfolio of specialty nylon polymers marketed as Shakespeare® Engineered Nylons, including the following:

<u>Product Code</u>	<u>Type Nylon</u>	<u>Product Code</u>	<u>Type Nylon</u>
HG19SC	Nylon 612	TT88SI	Terpolymer
HG31SI; HG31	Nylon 612	TT65SI	Terpolymer
SVPX95; HG195SC	Nylon 612	TT64SI	Terpolymer
SVPx-114	Nylon 612	TT25SI	Terpolymer
SVPX96; HG264SI	Nylon 612	TT65SI	Terpolymer
HG264SI	Nylon 612	TT52SI	Terpolymer
HW69SI, SVP6100	Nylon 610	SVP-651	Terpolymer
HW138SI	Nylon 610	AR-190	Nylon 6I/6T
CV140SI	Nylon 6,69 copolymer	SVPX-115	Nylon 6I/6T, modified
SVPX-110	Nylon 612, modified	SVPX-120	Confidential
SVPX-116	Nylon 612, modified	SVPX-121	Confidential
SVPX-111	Nylon 612, modified	SVPX-108	Confidential

To assist our customers, we provide the following information pertaining to the above listed products:

Directive 2002/95/EC (RoHS), Directive 2011/65/EU (RoHS 2), and other Heavy Metals

Based upon the information available to JAM from our raw material suppliers, the above product portfolio does not contain as intentionally added additives or ingredients any substances banned by Directive 2002/95/EC or Directive 2011/65/EU, commonly known as RoHS and RoHS 2, respectively. For further clarification, the following are not intentionally added additives or ingredients:

- Cadmium (Cd) and cadmium compounds
- Lead (Pb) and lead compounds
- Mercury (Hg) and mercury compounds
- Hexavalent chromium (Cr⁶⁺) and hexavalent chromium compounds
- Halogenated organic compounds and flame retardants, including
 - Polybrominated Diphenyl Ethers (PBDE)
 - Polybrominated biphenyls (PBB)

Directive 2002/95/EC was repealed January 3, 2013.

Directive 1907/2006 (REACH)

Based upon the information available to JAM from our raw material suppliers, the product portfolio listed on page 1 does not contain as intentionally added additives or ingredients any Substances of Very High Concern (SVHC) banned by Directive 1907/2006 as of the list dated December 17, 2015. The products listed on page 1 do not contain any substances listed on the REACH Annex XIV. The same products do not contain any substances listed on the REACH Annex XVII.

Directive 2011/65/EU

Even though the nylon polymers listed on page 1 are not considered electrical or electronic equipment (EEE) as defined by Directive 2011/65/EU, the same products do not contain as intentionally added additives or ingredients any of the restricted substances listed ANNEX II of Directive 2011/65/EU.

Directive 2000/53/EC (ELV)

The products listed on page 1 are suitable for use in vehicles that need to be compliant with EU Directive 2000/53/EC (End of Life – Vehicles). The following materials are not added to the product portfolio: lead, mercury, cadmium, and hexavalent chromium.

Directive 94/62/EC & Coalition of Northeast Governors (Packaging and Packaging Waste)

The packaging utilized for the product portfolio on page 1 is compliant with Directive 94/62/EC with the laws set forth by the Coalition of Northeast Governors. The sum of the concentration levels of lead, cadmium, mercury and hexavalent chromium in the packaging is less than 100 ppm.

Directive 2002/61/EC (Azo Dyes)

Azo dyes and other substances banned by EU Directive 2002/61/EC are not intentionally added to the product portfolio on page 1.

Directive 1895/2005/EC (Epoxy Derivates)

The substances regulated by European Directive 1895/2005/EC are not intentionally added to the product portfolio listed on page 1.

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Directive 2009/48/EC and EN71-3:2003 (Toys)

The product portfolio list on page 1 is under review to determine the suitability of using these materials in toys.

Caprolactam

The terpolymers listed in the product portfolio on page 1 do contain up to 5% caprolactam (CAS # 105-60-2). The CV140SI contains up to 8% caprolactam. However, these resin pellets are not considered hazardous as defined in 21 CFR 1910.1200.

CLP Regulation

Regarding carcinogenic, mutagenic, and reproduction toxic substances (CMRs), the product portfolio listed on page 1 does not contain any banned or restricted substances in Categories 1, 2 and 3.

California Proposition 65

Based upon a review relative to the Proposition 65 List dated December 4, 2015 the portfolio of Engineered Nylon Products listed on page one do not contain any chemicals known in the state of California to cause cancer.

Conflict Minerals / Dodd-Frank Act

The minerals regulated by the Dodd-Frank Wall Street Reform and Consumer Protection Act are not intentionally added to the Engineered Nylons listed on page 1. These regulated minerals are not necessary to the functionality of or the manufacturing of Shakespeare's Engineered Nylons.

Global Automotive Declarable Substance List (GADSL)

The product portfolio listed on page 1 does not contain as intentionally added materials the Listed Substances banned as of Feb. 1, 2015 by GADSL.

Toxic Substance Control Act (TSCA)

The portfolio of products listed on page 1 are in compliance with the U.S. Toxic Substance Control Act.

International Chemical Inventory Lists

Some countries require that chemical substances be listed on an inventory list prior to being imported into (or manufactured in) that country. The following chart provides the polymer types which have been confirmed to be listed by country. The products listed on page one are not considered mixtures.

Country	Name of Chemical Inventory List	Polymer Types from Page 1 Confirmed Listed by Country
EU	European Inventory of Existing Commercial Chemical Substances (EINECS)	Nylon 610; Nylon 612; Nylon 6
Australia	Australia Inventory of Chemical Substances (AICS)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
Canada	Domestic Substances List (DSL)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
	Non Domestic Substances List (NDSL)	
China	Inventory of Existing Chemical Substances (IECSC)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
Japan	Existing & New Chemical Substances (ENCS)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
Korea	Korea Existing Chemical Substances (KECI)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Nylon 610; Nylon 612; Nylon 6; Terpolymers; Nylon 6I/6T
United States	TSCA Chemical Substance Inventory - Published List, Confidential List, or listed via the Polymer Exemption	All Products Listed on Page 1

Other Banned Substances

The Shakespeare® portfolio of Engineered Nylons listed on page 1 does not contain as intentionally added additives or ingredients any of the following substances:

- Perfluorooctanic acid (PFOA)
- Allergenic and sensitizing substances restricted from use in toys
- Pentachlorophenol
- Toluenediisocyanate (TDI)
- Methyl isocyanate (MIC) and materials emitting MIC during use

- Aromatic amines

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Other Banned Substances (continued)

- Halogenated organic phosphorus compounds
- Antimony and its compounds
- Nanomaterials and materials containing nanomaterials
- Bisphenol A (BPA) and derivatives (monomeric)
- Substances on the SIN-list not already covered otherwise
- Persistent bioaccumulating toxics and very Persistent and very Bioaccumulating substances banned or restricted per REACH and 850/2004
- Endocrine disrupting substances banned or restricted by REACH and 2009/425
- Asbestos
- Azo dyes and colorants
- Class I and Class II ozone depleting substances including those commonly known as BFCs, CFCs, HBICs, HBFC, HCFCs, and Halons
- Chlorinated solvents including Carbon tetrachloride and 1,1,1-trichloroethane
- Methyl bromide
- Formaldehyde and materials emitting formaldehyde during use
- Polyvinyl chloride (PVC) and PVC mixtures
- Radioactive substances
- Perfluorooctane Sulfonates (PFOS) and its salts
- Cobalt dichloride
- Phthalates, including DEHP, DBP, BBP, DINP, DIDP, DNOP, DNHP
- Refrigerants, blowing agents, and perfluorinated hydrocarbons (PFCs) banned under 842/2006
- Hydrofluorocarbons
- Benzotriazole
- Beryllium oxide and Beryllium copper
- Biocides, triclosan, dimethylfumarate (DMF), and silver and silver compounds
- Halogen-free phosphorus based organic flame retardants
- Organotin compounds including Bistributyltin Oxide (TBTO), Tributyltins (TBT) and Triphenyltins (TPT)
- Organochlorine compounds including
 - Polychlorinated biphenyls (PCB)
 - Polychlorinated naphthalene (chlorine number is 3 and above)
 - Polychlorinated terphenyls (PCTs)
 - Chloroparaffins (CP)
 - Mirex

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REACH Registration Status

The following is the status of the registration of monomers used by Shakespeare Company, LLC to manufacture nylon 610 and 612, and for Shakespeare Monofilament UK Ltd. to import the same into the EU:

Nylon 612 Polymer

Nylon 612 is produced from the monomers Hexamethylene Diamine (HMD) and Dodecanedioic Acid (DDDA). These monomers are registered and thus the Shakespeare Co., LLC is not quantity restricted with regards importing any quantity of nylon 612 into Europe.

Nylon 610 Polymer

Nylon 610 is produced from the monomers HMD and Sebacic Acid. As stated above, the HMD is registered. The Sebacic Acid monomer is “pre-registered” meaning that Shakespeare is limited to importing up to 100 metric tons (MT) of Sebacic Acid monomer per calendar year. The 100 MT of Sebacic Acid corresponds to approximately 150 MT of nylon 610 polymer.

SVPX-110 and SVPX-111

All of the monomers for SVPX-110 and SVPX-111 have been either registered or preregistered. Shakespeare is limited to importing approximately 3,000 MT of these polymers into the EU.

SVPX-120 and SVPX-121

All of the monomers for SVPX-120 and SVPX-121 have been registered or preregistered. At this time, Shakespeare is limited to importing approximately 100 MT of these polymers (combined) into the EU.

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Source of Ingredients

Sebacic Acid and other monomers are used to manufacture the Nylon 610 and some of the terpolymers. The Sebacic Acid is derived from castor beans (plant origin). However, the castor beans are not harvested from Genetically Manipulated Organisms (GMO).

There are no raw materials which are animal based used to manufacture the portfolio of products on page 1.

With the exception of Sebacic Acid, all other raw materials are of synthetic origin.

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