

**1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION****MATERIAL IDENTITY:**

SeamTek-LTS-4101,  
Vinyl Ester Resin

**INFORMATION TELEPHONE:**

410-810-2100

**COMPANY:**

Seamless Technologies, Inc.  
PO Box 428  
Chestertown, MD 21620

**EMERGENCY TELEPHONE:**

CHEMTREC: 800-424-9300

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient(s)	CAS Number	% (by weight)	Exposure Limits		
			PEL	STEL	TLV
Vinyl Ester Polymer Monomer(s)	Proprietary	25 - 85	NE	NE	NE
	868-77-9	15 - 75	NE	NE	NE
Calcium Carbonate	471-3-1	10 - 30	5 mg/m <sup>3</sup> respirable	NE	NE
Talc	14807-96-6	5 - 30	2 mg/m <sup>3</sup> respirable	NE	NE

**3. HAZARDS IDENTIFICATION****EYE**

This material can cause severe eye irritation. Symptoms severe irritation, redness, tearing, blurred vision and corneal damage.

**SKIN ABSORPTION**

May be absorbed through the skin in harmful amounts. May cause skin sensitization, and allergic reaction, which become evident upon re-exposure.

**SKIN IRRITATION**

Prolonged or repeated contact can cause moderate irritation and dermatitis and sensitization.

**INGESTION**

Can cause gastrointestinal irritation with nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

**INHALATION**

Wear appropriate respiration equipment if vapor or mist is expected. Inhalation may cause respiratory tract irritation. Excessive inhalation of vapors can cause nasal irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation. This product contains talc which is currently listed by OSHA as a respirable dust hazard with an exposure limits of 2 mg/m<sup>3</sup>.

**CHRONIC EFFECTS**

The toxicological properties of this substance have not been fully investigated.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease. Exposure to dusts may aggravate breathing problems, colds and congestion.

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**4. FIRST AID MEASURES**

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**EYES**

Immediately flush eyes gently with large amounts of water for at least 15 minutes. Retract eyelids often. Get prompt medical attention.

**SKIN**

Remove contaminated clothing. Wash the exposed area with mild soap and water. Flush w/lukewarm water for 15 minutes. Launder contaminated clothing before re-use. Seek medical attention if ill effect or irritation develops.

**INGESTION**

Do not induce vomiting. Never give anything by mouth to an unconscious person. Keep person warm, quiet and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**INHALATION**

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention immediately.

**ADVISE TO PHYSICIANS**

Treat symptomatically and supportively.

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**5. FIRE FIGHTING MEASURES**

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**FLASH POINT METHOD**

GT 215 F/102 C for volatile components

**FLAMMABLE LIMITS (% VOLUME IN AIR)**      **AUTOIGNITION TEMP. METHOD = N/AP**

LOWER: N/AP    UPPER: N/AP

**FIRE AND EXPLOSIVE HAZARDS**

Fire or excessive heat may result in rupture of container due to bulk polymerization. Heating may cause explosion.

**EXTINGUISHING MEDIA**

Dry Chemical, CO<sub>2</sub>, Foam, Water spray/water fog for cooling. **USE WATER WITH CAUTION.** Water may be ineffective in fighting the fire.

**FIRE FIGHTING INSTRUCTIONS**

Wear self contained breathing apparatus (pressure-demand MSHA/NIOSH) approved or equivalent and protective clothing. See Section 10 – decomposition products possible. Fight fire from safe distance/protected location. Water may be ineffective in firefighting due to low solubility. Use water spray/fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer/public waters.

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**6. ACCIDENTAL RELEASE MEASURES**

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Spilled or released material may polymerize and release heat/gases. Eliminate all ignition sources and ventilate area. Wear protective equipment during clean up. Dike and recover large spill. Soak up small spill with inert solids (such as vermiculite, clay) and sweep/shovel into vented disposal container. Wash spill area with a strong detergent and water solution; rinse with water but minimize water use during clean up. Prevent runoff from entering drains, sewers, or streams. Dispose/report per regulatory requirements.

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**7. HANDLING AND STORAGE**

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Unless inhibited, product can polymerize, raising temperature and pressure, possibly rupturing container. Check inhibitor content often, adding to bulk liquid if needed. Do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective. Do not store at below 32F – inhibitor can separate as a solid. If frozen,

warm and remix material gently (<90F). Prevent moisture contact. Store in tightly closed, properly vented containers away from: heat, sparks, open flame, strong oxidizers, radiation and other initiators. Prevent contamination by foreign materials. Use only non-sparking tools and limit storage time.

#### DECONTAMINATION PROCEDURES

Follow standard plant procedures or supervisor's instructions for decontamination operations.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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#### EYE PROTECTION

Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles or vapor. Contact lenses should not be worn.

#### SKIN PROTECTION

When skin contact is possible, protective clothing including apron, sleeves, boots head and face protection should be worn. Wear chemical resistant gloves such as neoprene, rubber, latex, etc.

#### RESPIRATORY PROTECTIONS

Where exposure through inhalation may occur from use, NIOSH/MSHA approved respiratory protection equipment is recommended. If cured material is cut or sanded a NIOSH/MSHA particulate respirator is recommended.

#### ENGINEERING CONTROLS

Local exhaust ventilation may be required in addition to general room ventilation.

#### OTHER HYGIENIC PRACTICES

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### OTHER WORK PRACTICES

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work using plenty of soap and water.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

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Boiling Point	408 F/198 C
Vapor Pressure	0.23 mm Hg
Vapor Density (air=1)	> 1
Specific Gravity (water=1 @39.2F)	1.31 @ 25C/77F
Percent Volatiles	Negligible
Evaporation Rate (Bac=1)	N/DA
Viscosity Units, Temp. (Brookfield)	AP varies with product mix cps @ 25C/77F
Odor	Mild to sweet acrylic odor
pH	N/DA
Color	Straw to light yellow
State	viscous liquid

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### 10. STABILITY AND REACTIVITY

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#### CONDITIONS AND MATERIALS TO AVOID

High temperatures, localized heat sources (i.e., drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing; strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Acrid smoke-fumes, carbon monoxide, carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

**11. SUPPLEMENT**

## NPCA HMIS RATING

Health	2
Flammability	2
Reactivity	1
Personal Protection**	D

\*\*Respiratory protection may be necessary depending on conditions of use.

**12. TOXICOLOGY INFORMATION****Toxicity data based on HEMA****Acute Oral Toxicity**

LD50: (rat, FDA-Guidelines) >5,000 mg/kg

**Acute Dermal Toxicity**

LC50: Rabbit > 3,000 mg/kg

**Irritating Effect on the Skin**

rabbit, 24 h, Draize

not irritating

**Irritating Effect on the Eyes**

rabbit, 24 h, Draize

irritating

**Sensitization**

Guinea pig, various test systems  
Cases of sensitization also observed in humans

sensitizing

**Toxicity on Repeated Administration**

Dose at which no adverse effects were observed (NOAEL). At higher doses adverse effects were observed.

rat, inhalation, 3 w, 0.5 mg/kg

NOAEL 500 mg/m<sup>3</sup>

rat, oral, 7 w, 0, 30, 100, 300, 1000 mg/kg/d OECD

NOAEL 30 mg/kg

**Mutagenicity**

Positive as well as negative results in in-vitro mutagenicity/genotoxicity tests.  
No experimental indication of genotoxicity in vivo available.

**13. REGULATORY INFORMATION****SARA TITLE 3: SECTION 311/312 HAZARD CLASS (40CFR370)**

This product does not contain a chemical which is listed in Section 313 at or above the de minimus concentrations.

**CERCLA INFORMATION (40CFR302.4)**

This material contains no hazardous or extremely hazardous substances as defined by CERCLA or SARA Title III, and release is therefore not reportable.

TSCA status: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

California Proposition 65 Information: This product does not contain substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

This material contains an inhibitor (HQ, MEHQ, etc.). The type and amount meet product specifications. Contact a company representative for exact concentrations and details on inhibitor level maintenance.

**TRANSPORTATION INFORMATION**

US DOT Hazard Class

Non-Regulated

**WORKPLACE CLASSIFICATION**

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**WASTE CLASSIFICATION**

When a decision is made to discard this material as supplied, it does not meet RCRA's characteristics definition of ignitability, corrosiveness, or reactivity and is not listed in 40CFR261.33. The toxicity characteristic (TC), has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

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**14. OTHER INFORMATION**

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Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources, which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

\*Note – qualifiers and codes used in this MSDS

EQ=Equal; AP= Approximately; LT= Less Than; GT = Greater Than; TR =Trace; UK = Unknown; N/AP = Not Applicable; N/P = No Applicable Information Found; N/DA = No Data Available; NE = Not Established