

MATERIAL SAFETY DATA SHEET

Date Prepared: 011/21/2007

Date Modified: 00/00/0000

Date Printed: 5/2/2008

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

MATERIAL IDENTITY:

SeamTek-226 LG
Aspartic Ester

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
Aspartic Ester (s)	Proprietary	60 - 80 %	NE	NE	NE
Aldamine	54914-37-3	5 - 15%	NE	NE	NE
Aliphatic Carboxylic Ester	623-91-6	1 - 5%	NE	NE	NE
Titanium Dioxide	13463-67-7	1 - 50%	15 mg/m ³	NE	NE
Carbon Black	1333-86-4	0 - 1%	3.5 mg/m ³	NE	NE

3. HAZARDS IDENTIFICATION

EYE

Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation. Symptoms may include pain or burning sensation, redness, swelling, tearing/discharge or blurred vision.

SKIN ABSORPTION

May cause irritation with symptoms of reddening and itching. Repeated exposure may cause allergic skin reaction with symptoms of reddening, itching swelling, and rash. May cause sensitization of susceptible persons.

SKIN

May cause irritation with symptoms of reddening and itching. Repeated exposure may cause allergic skin reaction with symptoms of reddening, itching swelling, and rash. May cause sensitization of susceptible persons.

INGESTION

Ingestion is not a typical route of industrial exposure. Not expected to be harmful if swallowed.

INHALATION

Inhalation is unlikely due to low vapor pressure. If misted or handled at elevated temperatures, high concentrations may cause respiratory tract irritation. Wear appropriate respiration equipment if vapor or mist is expected. Symptoms of irritation may include coughing, mucous production and shortness of breath. This product contains titanium dioxide which is currently listed by OSHA as a nuisance dust hazard with permissible exposure limits of 15 mg/m³ total dust and 5 mg/m³ respirable dust, and carbon black which is a possible human carcinogen with OSHA and has a permissible exposure limit of 3.5 mg/m³.

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 eye, skin and respiratory disorders.

MATERIAL SAFETY DATA SHEET

Date Prepared: 011/21/2007

Date Modified: 00/00/0000

Date Printed: 5/2/2008

4. FIRST AID MEASURES

EYES

Immediately flush eyes gently with large amounts of water for at least 20-30 minutes. Retract eyelids often. Get prompt medical attention.

SKIN

Thoroughly wash the exposed area with mild soap and water. Remove contaminated clothing and launder contaminated clothing before re-use. Seek medical attention if exposure symptoms develop.

INGESTION

If large quantity is swallowed, give lukewarm water (pint) if victim is completely conscious/alert. Do not induce vomiting as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

INHALATION

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

ADVISE TO PHYSICIANS

If exposed, treat skin and eye burns or irritation conventionally after decontamination.

5. FIRE FIGHTING MEASURES

FLASH POINT METHOD= (Estimated)

GT 93.3C/200 F

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

LOWER: N/AP UPPER: N/AP

FIRE AND EXPLOSIVE HAZARDS

At higher temperatures vapors can cause pressure build up in sealed containers. Use water to cool containers exposed to fire. Self contained breathing apparatus and full protective clothing is required when smoke or fumes are generated.

EXTINGUISHING MEDIA

Dry Chemical, CO2, Foam, Water spray/water fog for cooling.

FIRE FIGHTING INSTRUCTIONS

Do not enter fire area without proper protection. Wear self contained breathing apparatus (pressure-demand MSHA/NIOSH) approved or equivalent. See Section 10 - decomposition products possible. Fight fire from safe distance/protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Use water spray/fog for cooling. Notify authorities if liquid enters sewer/public waters.

6. ACCIDENTAL RELEASE MEASURES

Extinguish all ignition sources and ventilate area. Wear protective equipment during clean up. Cover spills and 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. For spills on water, contain, minimize dispersion and collect. Dispose/report per regulatory requirements. Evacuate and keep unnecessary people out of the spill area.

7. HANDLING AND STORAGE

Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Do not breathe vapors or spray mist. Store in a dry place away from excessive heat. The material can be stored safely at ambient temperatures. This material can be stored safely at ambient temperatures. Minimum storage temperature 32 F (0 C) Maximum storage temperature 122 F (50 C). Material is hygroscopic and may absorb small amounts of atmospheric moisture.

DECONTAMINATION PROCEDURES

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

MATERIAL SAFETY DATA SHEET

Date Prepared: 011/21/2007

Date Modified: 00/00/0000

Date Printed: 5/2/2008

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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 gloves, apron, sleeves, boots, head and face protection should be worn. Gloves should be impervious neoprene or rubber. Clean equipment thoroughly after each use.

RESPIRATORY PROTECTIONS

No respiratory protection is recommended for while working with this material. However if conditions such as in a spray application create a high vapor or mist concentration, use of a NIOSH/MSHA organic vapor/particulate approved respirator or supplied air 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. Curing ovens must be ventilated to prevent build up of explosive atmospheres and to prevent gases from entering the work place.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	185C/365F @ 1.0133mbar)
Vapor Pressure	0.000014 mm Hg
Vapor Density (air=1)	GT 1
Specific Gravity (water=1 @39.2F)	AP 1.22 @ 25C/77F
Percent Volatiles	<1 %
Evaporation Rate (Bac=1)	None
Odor	Mild amine odor
pH	N/DA
Color	Light Gray
State	viscous liquid

10. STABILITY AND REACTIVITY

CONDITIONS AND MATERIALS TO AVOID

Hazardous polymerization does not occur. Avoid contact with oxidizing agents. Avoid extreme heat.

HAZARDOUS DECOMPOSITION PRODUCTS

Fire and thermal decomposition can produce carbon oxides, nitrogen oxides (NO_x) amines and other aliphatic fragments which have not been determined. Ammonia may be liberated at high temperatures.

11. SUPPLEMENT

NPCA HMIS RATING

Health	2
Flammability	1
Reactivity	0

Personal Protection** D**Respiratory protection may be necessary depending on conditions of use.

MATERIAL SAFETY DATA SHEET

Date Prepared: 011/21/2007

Date Modified: 00/00/0000

Date Printed: 5/2/2008

12. TOXICOLOGY INFORMATION

Toxicity Data for DESMOPHEN NH 1420

Toxicity Note

Toxicity data is based on a similar product.

Acute Oral Toxicity

LD50: > 2,000 mg/kg (Rat)

Acute Inhalation Toxicity

LC50: > 4,224 mg/l, aerosol, 4 h (Rat)

Acute dermal toxicity

LD50: > 2,000 mg/kg (Rat)

Skin Irritation

rabbit, Exposure Time: 24 h, Moderately irritating

Eye Irritation

rabbit, Moderately irritating

Sensitization

(Guinea pig, Magnusson/Kligmann (Maximization Test))
Strong skin sensitizing potential.

Mutagenicity

Genetic Toxicity in Vitro:
Ames test: negative
Based on a similar product.

Toxicity Data for Aliphatic Carboxylic Ester

Acute Oral Toxicity

LD50: 1,780 mg/kg (Rat)

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 at or above the de minimus concentrations 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 contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

MATERIAL SAFETY DATA SHEET

Date Prepared: 011/21/2007

Date Modified: 00/00/0000

Date Printed: 5/2/2008

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).

14. OTHER INFORMATION

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