TYPE 1 Flake Flooring System		
Proper Name	**Use within System**	**Name on General MSDS List**
Fiberglass 3733	Composite Fiberglass beneath the system	Fiberglass
101 Resin (SR 101 and SH101)	Body matrix for Aggregate Build Coat(s)	SR101 and SH 101
TRP 354	Body Coat	CRH 405
Flakes	Aggregates and System Color	Chips
200C A/ 200 B resin	Grout coat	200C A and 200C B
UV13	Seal Coat	UV13

Material Safetv Data Sheet 200C A

Effective Date: 08/09/2005 Previous Revision date: 00/00/0000 Date Printed: 6/13/2014

SECTION 1 Product and Company Information

PRODUCT NAME: SeamTek 200C A (Iso)
GENERIC NAME: Aspartic Ester

DISTRIBUTOR: LSP Performance Resins
124 Speer Road
Chestertown, MD 21620

Chemtrec
24 Hour Emergency Number 1-800-424-9300
Information Number 1- 920-803-1700

Comments: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/ECC and Canadian Hazardous Products Act

SECTION 2 Hazards Identification

Emergency Overview
OSHA Hazardous
Skin sensitizer, Skin, Eye, Respiratory Irritant, Digestive Tract Irritant

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Health		Environmental	Physical
Eye Irritation Respiratory Sensitization Skin Sensitization	Category 2A Category 1 Category 1	Not Classified	Not Classified

Pictogram:

Hazard Statements	Precautionary Statements
H317 May cause an allergic skin reaction H319 Causes serious eye irritation H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled	P261 Avoid breathing dust/fume/gas/mist/vapours/ spray. P264 Wash thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/eye protection/face protection. P285 In case of inadequate ventilation wear respiratory protection. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333 + P313 If skin irritation or rash occurs get medical advice/ attention. P337 + P311 If eye irritation persists: Get medical advice/ attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician P363 Wash contaminated clothing before reuse. P501 Dispose of containers in accordance with local/regional/national/international requirements.

SECTION 3 Composition / Information on Ingredients

Chemical Name	CAS	Wt%
Hexane,1.6-diisocyanate, -Homopolymer	28182-81-2	100 %
Hexamethylene Diisocyanate (HDI)	822-06-0	< 0.5

SECTION 4 First Aid Measures

Eyes Contact: Immediately flush eyes gently with large amounts of water for at least 15 minutes. Retract eyelids often. Get prompt medical attention. Can cause pain, tearing, reddening, and swelling accompanied by a stinging sensation. Chronic exposure can cause corneal opacity.

Skin Contact: 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.

May be harmful if absorbed through the skin. Symptoms of irritation may be reddening swelling, rash, scaling or blistering. May cause sensitization and allergic reaction.

Ingestion: If victim is conscious and alert, give 2 - 3 glasses of water to drink and induce vomiting by touching the back of the throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than the waist if vomiting occurs and the victim is conscious; give water to further dilute the chemical.

May be harmful if swallowed. Can cause irritation and possible corrosive action to the mouth, stomach tissue and digestive tract.

Inhalation: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention immediately. May cause shortness of breath, headache, nausea, vomiting, respiratory tract irritation.

Advise to physicians: All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Exposure may aggravate asthma and other respiratory disorders (bronchitis, emphysema, and hyperactivity) skin allergies and eczema.

SECTION 5 Fire Fighting Measures

Conditions of Flammability
Product will burn under fire conditions. Under fire conditions, toxic, corrosive fumes are emitted including nitrogen and carbon oxides. Use water to cool tightly closed containers exposed to fire. Self contained breathing apparatus and full protective clothing is required when smoke or fumes are generated.

Suitable extinguishing media
Dry Chemical, CO2, Foam, **WATER IS NOT** recommended.

Hazardous Decomposition Products
Thermal decomposition may produce nitrogen oxides and carbon oxides.

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. Use water spray/fog for cooling tightly sealed containers. Notify authorities if liquid enters sewer/public waters.

SECTION 6 Accidental Release Measures

Personal Precautions
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions
Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air. Prevent runoff from entering drains, sewers, or streams. Dispose/report per regulatory requirements. See Section 1 for emergency contact information and Section 13 for waste disposal.

Methods and Materials for Containment and Cleaning Up
Cover spills and soak up small spill with inert solids (such as vermiculite, clay) and sweep/shovel into disposal container. Pump free liquid into an appropriate closed container. Clean up spill area with a decontamination solution made up of 50% isopropanol, 45% water and 5% concentration ammonia solution (% by Weight). The solution should cover the area for at least one hour. Absorb with an inert absorbent. Collect washing for disposal. Dispose/report per regulatory requirements. **Do not** flush into drains.

SECTION 7 Handling and Storage

Precautions for Safe Handling
Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Conditions for Safe Storage
This material is stable under normal handling and storage conditions. Maximum storage temperature is < 40 C (104 F). Store in a dry, well ventilated area. Store, transfer and handle under a blanket of nitrogen. Before closing partially empty containers, blanket with dry nitrogen. Replace damaged gaskets.

Store in tightly closed containers. Store in original container. Recommended container material: aluminum, epoxy coated steel, stainless steel, plastic. Container material to avoid, copper, tin.

SECTION 8 Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Hazardous Component	PEL	STEL	TLV	Other
Hexane,1.6-diisocyanate, -Homopolymer	NE	NE	NE	
Hexamethylene Diisocyanate (HDI)	NE	NE	ACGIH 0.005 ppm	

Engineering Controls
Local exhaust ventilation may be required in addition to general room ventilation. Good industrial hygiene practice dictates that worker protection be achieved through ventilation whenever feasible.

Respiratory Protections
Where respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations. Full-face air purifying respirators are required in work environments where isocyanate airborne concentrations exceed the action level but are significantly lower than the IDLH provided that the cartridges are changed daily. Use combination HEPA Filter for the polyisocyanate aerosol and an organic vapor cartridge for the solvents used. Full face supplied air respirators (SAR) are required in work environments where isocyanate airborne concentrations have not been characterized or are expected to exhibit considerable and sudden variations such as in spray type application. Curing ovens must be ventilated to prevent emissions to the workplace.

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 and Body 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, rubber or latex. Clean equipment thoroughly after each use.

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

OTHER WORK PRACTICES

Precautions must be taken so that persons handling this product do not allow contact with eyes or skin. In spray operations protection must be afforded against exposure to both vapor and spray mists.

Use good personal hygiene practices. Do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is being used. Wash hands before eating, drinking, smoking or using toilet facilities. Wash exposed skin promptly to remove accidental splashes or contact with these materials. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work using plenty of soap and water.

SECTION 9 Physical and Chemical Properties

Appearance Form Color pH Melting/Freezing Temperature Boiling Point	 Viscous Liquid Clear to Pale yellow Not available 67 C (152 F) 255 C (491 F)
Flash Point	170 C/ 338 F
Ignition Temperature	Not available
Autoignition Temperature Lower explosive limit; na	454 C (849 F) Upper explosive limit: na
Vapor Pressure	0.001 mm Hg at 20 C
Vapor Density (air=1)	5.8 Air = 1
Specific Gravity (water=1 @39.2F)	1.13 at 20 C/68F
Evaporation Rate (Bac=1)	Not available
Odor	Odorless
Odor threshold	Not available

SECTION 10 Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Stable under normal processing conditions.

Conditions to Avoid

Reacts violently with common materials including water, alcohols, bases and amines.

Materials to Avoid

Store away from water, alcohols, bases, and amines.

Hazardous Decomposition Products

Thermal decomposition may produce nitrogen oxides and carbon oxides

SECTION 11 Toxicological Information

Acute Toxicity hexamethylene diisocyanate

Oral LD50 – lethal concentration 50% of test species	Rat	> 5,000 mg/kg
Dermal LD50 – lethal concentration 50% of test species	Rabbit	> 2,000 mg/kg
Inhalation LD50 – lethal concentration 50% of test species	Rat	2.18 mg/l – 4 hr

Skin Corrosion/Irritation

Skin	Rabbit	Slightly Irritating

Serious Eye Damage/Eye Irritation

Eye	Rabbit	Mildly Irritating

Respiratory or Skin Sensitization

Skin	Guinea Pig	Sensitizing

Mutagenicity

No data available

Carcinogenicity

IARC: During normal processing, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: During normal processing, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: During normal processing, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

SECTION 12 Ecological Information

Aquatic Ecotoxicity **Bioaccumulative potential** **No data available**

No data available

Biodegradability

No data available

Mobility in soil

No data available

SECTION 13 Disposal Considerations

Waste Disposal

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).

SECTION 14 Transport Information

DOT (US)

Not regulated by DOT

IMDG

Not regulated by IMDG

IATA

Not regulated by IATA

SECTION 15 Regulatory Information

TSCA INVENTORY STATUS

All components are listed or exempt

OSHA HAZARDS

Skin Irritant, Skin Sensitizer, Eye Irritant, Respiratory Irritant, Digestive Tract Irritant

	HMIS Classification	NFPA Rating
Health Hazard;	2	2
Flammability	1	1
Physical Hazards	1	1

SARA TITLE III: Section 311/312 Hazard Class

	CERCLA/SARA RQ
Hexamethylene diisocyanate	100 lbs

SARA TITLE III: Section 313 (40CFR370)

	CERCLA/SARA RQ
Hexamethylene diisocyanate	100 lbs

CERCLA Information (40CFR302.4)

This material contains Hexamethylene diisocyanate and releases in excess of CERCLA thresholds are reportable.

California Proposition 65 Information:

This product does not contain, or may contain substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16 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 SDS 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 SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Material Safetv Data Sheet 200C B

Effective Date: 08/09/2005 Previous Revision date: 00/00/0000 Date Printed: 6/13/2014

SECTION 1 Product and Company Information

PRODUCT NAME: SeamTek 200C B Clear Coat

GENERIC NAME: Poly Resin

Chemtrec
24 Hour Emergency Number 1-800-424-9300
Information Number: 1- 920-803-1700

DISTRIBUTOR: LSP Performance Resins
124 Speer Road
Chestertown, MD 21620

Comments: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/ECC and Canadian Hazardous Products Act

SECTION 2 Hazards Identification

Emergency Overview

OSHA Hazardous

Skin, Eye and Respiratory Irritant, Skin Sensitizer
Target Organs:Eyes, Skin, Digestive Tract, Respiratory Tract

Carcinogenicity: Not listed by NTP Not Listed by IARC Not Listed by OSHA	Reproductive Toxicity Reproductive Effects : Not Available Teratogenic Effects: No evidence of mutagenetic effects

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Health		Environmental	Physical
Acute Toxicity Skin Irritant Eye Irritation Skin Sensitizer STOT (Respiratory)	Category 5 Category 2 Category 2A Category 1 Category 3	Acute Aquatic Hazard	Category 3

Pictogram:

Hazard Statements		Precautionary Statements
H315	May be harmful if swallowed	P261 Avoid breathing dust/fume/gas/mist/vapours/ spray.
H315	Causes skin irritation	P264 Wash thoroughly after handling.
H317	May cause an allergic skin reaction	P280 Wear protective gloves/eye protection/face protection.
H319	Causes serious eye irritation	P302+P352 IF ON SKIN: Wash with plenty of soap and water.
H335	May Cause respiratory irritation	P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
H402	Harmful to aquatic life	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P312 Call a POISON CENTER or doctor/physician if you feel unwell.
		P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
		P363 Wash contaminated clothing before reuse.
		P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
		P501 Dispose of containers in accordance with local/regional/national/international requirements.

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. May cause irritation. Symptoms include abdominal pain, nausea, vomiting and diarrhea.

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 talc which is currently listed by OSHA as a respirable dust hazard with an exposure limits of 2 mg/m^3.

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.

SECTION 3 Composition / Information on Ingredients

Chemical Name	CAS	Wt%
Aspartic Ester (s)	Proprietary	50 - 70 %
Aliphatic Carboxylic Ester	623-91-6	1 - 5%
Propylene Carbonate	50862-75-4	1 - 5%
Aldimine	54914-37-3	1 - 5%

SECTION 4 First Aid Measures

Eyes Contact: Immediately flush eyes gently with large amounts of water for at least 20-30 minutes. Retract eyelids often. Get prompt medical attention. Symptoms of exposure may include pain or burning sensation, redness, swelling, tearing/discharge or blurred vision.

Skin Contact: 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.

Symptoms may include irritation with reddening and itching. Repeated exposure may cause allergic skin reaction and sensitization of susceptible persons.

Ingestion: If large quantity is swallowed, give lukewarm water (2 cups) if victim is completely conscious/alert. Do not induce vomiting as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

Inhalation: Inhalation is unlikely due to low vapor pressure. If misted or handled at elevated temperatures, high concentrations may cause respiratory tract irritation. 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. This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease.

SECTION 5 Fire Fighting Measures

Conditions of Flammability

At higher temperatures vapors can cause pressure build up in sealed containers. Use water to cool containers exposed to fire.

Suitable extinguishing media

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

Hazardous Decomposition Products

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

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.

SECTION 6 Accidental Release Measures

Personal Precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions

Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air.

Methods and Materials for Containment and Cleaning Up

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. See Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7 Handling and Storage

Precautions for Safe Handling

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Conditions for Safe Storage

Keep container closed when not in use. Store in a dry place away from excessive heat. The material can be stored safely at ambient temperatures. Minimum storage temperature 32 F (0 C) Maximum storage temperature 104 F (40 C). Material is hygroscopic and may absorb small amounts of atmospheric moisture.

SECTION 8 Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Hazardous Component	PEL	STEL	TLV	Other
Aspartic Ester (s)	NE	NE	NE	
Aliphatic Carboxylic Ester	NE	NE	NE	
Propylene Carbonate	NE	NE	NE	
Aldimine	NE	NE	NE	

Engineering Controls

Use local exhaust ventilation to maintain airborne concentrations below exposure limits. Respiratory protection may be required in addition to general room ventilation.

Respiratory Protections

No respiratory protection is recommended for 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.

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 and Body 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, rubber or latex. Clean equipment thoroughly after each use.

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.

SECTION 9 Physical and Chemical Properties

Appearance Form Color pH Melting/Freezing Temperature Boiling Point	 Viscous Liquid Clear to light straw Not available < -20 C (<4 F) 185C/365F @ 1.0133mbar)
Flash Point	> 93.3 C/200 F
Ignition Temperature	Not available
Autoignition Temperature Lower explosive limit; na	N/AP Upper explosive limit: na
Vapor Pressure	0.000014 mm Hg
Vapor Density (air=1)	>1
Specific Gravity (water=1 @39.2F)	AP 1.22 at 25 C/77F
Evaporation Rate (Bac=1)	None
Odor	Mild amine odor
Odor threshold	Not available

SECTION 10 Stability and Reactivity

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
Hazardous polymerization does not occur.

Conditions to Avoid
Avoid extreme heat.

Materials to Avoid
Avoid contact with oxidizing agents.

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

SECTION 11 Toxicological Information

Toxicity Data Based on DESMOPHEN NH 1520

Acute Toxicity

Oral LD50 Rat > 200 mg/kg

Dermal LD50 Rat > 2,000 mg/kg
Inhalation LC50 Rat
> 4,224 mg/m^3

Skin Corrosion/Irritation

Skin Rabbit Moderate skin Irritant

Serious Eye Damage/Eye Irritation

Eye Rabbit Non-irritating

Respiratory or Skin Sensitization

Dermal Guinea Pig Sensitizer

Mutagenicity

Genetic Toxicity in Vitro:
Ames test: negative (Salmonella typhimurium)

Toxicity Data Based on Aliphatic Carboxylic Ester

Acute Toxicity

Oral LD50 Rat
1,780 mg/kg

Toxicity Data Based on Aspartic Ester

Acute Toxicity

Oral LD50 Rat > 2,000 mg/kg
Dermal LD50 Rat > 2,000 mg/kg
Inhalation LC50 Rat 4,224 mg/m^3

Skin Corrosion/Irritation

Skin Rabbit Moderate skin Irritant

Serious Eye Damage/Eye Irritation

Eye Rabbit Non-irritating

Respiratory or Skin Sensitization

Dermal Guinea Pig Sensitizer

Mutagenicity

Genetic Toxicity in Vitro:
Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Carcinogenicity

IARC: During normal processing, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: During normal processing, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: During normal processing, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

SECTION 12 Ecological Information

Aquatic Ecotoxicity Desmophen NH1520

Toxicity to fish	LC50 Brachydanio rerio (Zebra fish) 66 mg/l – 96 h
Toxicity to aquatic invertebrates	EC50 Daphnia magna (water flea) 88.6 mg/l – 48 h
Toxicity to algae	EC50 Scenedemus subspicatus (Green Algae) 113 mg/l – 72 h
Toxicity to bacteria	EC50 3,000 mg/l

Biodegradability

13% Not readily biodegradable. Aerobic exposure time 28 d

Bioaccumulative potential

No data available

Mobility in soil

No data available

SECTION 13 Disposal Considerations

Waste Disposal

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).

SECTION 14 Transport Information

DOT (US)

Not regulated by DOT

IMDG

Not regulated by IMDG

IATA

Not regulated by IATA

SECTION 15 Regulatory Information

TSCA Inventory Status

All components are listed or exempt

OSHA Hazards

Skin, Eye and Respiratory Irritant, Skin Sensitizer

	HMIS Classification	NFPA Rating
Health Hazard;	2	2
Flammability	1	1
Physical Hazards	0	0

Sara Title III: Section 311/312 Hazard Class

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

Sara Title III: Section 313 (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.

California Proposition 65 Information:

This product does not contain, or may contain substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16 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 SDS 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 SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

MATERIAL SAFETY DATA SHEET

Flakes/Chips

1. PRODUCT and COMPANY INFORMATION

Product Name:	Chips/Flakes
Manufacturer:	CHIPS UNLIMITED, INC.
Address:	1824 East 6th Street Tempe, Arizona 85281 U.S.A.
Telephone:	877-502-4477 ● 480-968-1550
Internet:	www.chipsunlimited.com

MADE IN THE U.S.A.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Concentrate
Polyvinyl Acetate	CAS#9003-20-7	12 - 22%
Barium Sulfate	CAS#7727-43-7	65 - 85%
(Material is stable – Hazardous polymerization will not occur.)		
Talc	CAS#14807-96-6	2 - 10%
Potassium TriPolyPhosphate	CAS#13845-36-8	<.15%
Titanium Dioxide	CAS#13463-67-7	1 - 10%
(Not used in black, dark blue, dark green or dark brown colors.)		
Carbon Black (Black Chips Only)		± .5%

Additionally, Carbon Black CAS#1333-86-4 and various Copper Compounds are used to achieve other final color. When used, only a trace (± .1%) remains.

3. HAZARDS IDENTIFICATION (Hazard Material Identification System)

Effects of Overexposure

Health – 0; Flammability – 1 (Minimal); Reactivity – 0; Personal Protection – E (Dust Resp).

Inhalation: The dust may cause respiratory irritation with coughing and shortness of breath. The chips/dust are not likely to be hazardous to the skin.

Eye Contact: The dust may be irritating to the eye.

4. FIRST AID MEASURES

Emergency and First Aid Procedures

I**nhalation**: Remove affected party/parties to an area with plenty of fresh air. If effects persist call a physician.

Eye and Skin Contact: Flush affected area with plenty of water for about 10 to 15 minutes. Wash affected skin area with soap and water.

5. FIRE FIGHTING MEASURES

Fire and explosive properties: This product is not known to present any fire hazard.

6. ACCIDENTAL RELEASE MEASURES

Sweep up and/or shovel or use vacuum to clean up spillage. Deposit into covered container for disposal. All material should then be disposed of in accordance with pertinent Federal, State and Local regulations.

7. HANDLING AND STORAGE

Handling: Avoid dust formation. Provide appropriate exhaust ventilation in places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage: Store in a dry area. Keep containers closed and protect from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use mechanical ventilation (dilution and local exhaust) to control exposure.

Eye Protection: Safety glasses with side shields.

Skin and Body Protection: Use suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential.
Hand Protection: Impervious gloves.
Respiratory Protection: In case of exposure to high levels of airborne dust, wear a respirator in compliance with national legislation.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.
Environmental Exposure: This product does not present any particular risk for the environment. Refer to applicable national, state and local regulations prior to washing in drain.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A
Vapor Pressure: Not Volatile
Vapor Density: Not Volatile
Specific Gravity (H_2O = 1): 1.1 – 1.2
Evaporation Rate (Butyl Acetate=1): Not Volatile
Appearance: Various colored flakes with color depending upon specific tints used in formula.

10. STABILITY AND REACTIVITY

Conditions contributing to instability: Product is stable but will react violently with sulfuric acid or alkali materials such as sodium.
Incompatibility: Not available/None known.
Conditions contributing to hazardous polymerization: None.

11. TOXICOLOGICAL INFORMATION

Chronic Toxicity: This product is not listed as a carcinogen by the IARC, NTP or OSHA.

No specific testing for irritation has been done.

12. ECOLOGICAL INFORMATION

No ecological testing has been done on this product.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local State and National regulations.

14. TRANSPORTATION INFORMATION

Not Regulated – Ship as Class 60.

15. REGULATORY INFORMATION

U.S. Toxic Substances Control Act: Compliant with regulations.
Sara Title III Section 312; Section 313: Not hazardous.
California Proposition 65: No ingredients known to be present that causes cancer, birth defects or reproductive hazards.
Canadian Domestic Substances List: All components in this product are on the Canadian Domestic Substances List or are exempt from listing.

16. OTHER INFORMATION

User's responsibility/disclaimer of liability: ***As the conditions or methods of use are beyond our control, Chips Unlimited, Inc. does not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state and local laws and local regulations remains the responsibility of the user.***

Date Prepared: July 1990
Date Revised: March 2001, November 2001, September 2002, June 2005, November 2005
Date Reviewed: March 2009

Safety Data Sheet

Section 1: PRODUCT AND COMPANY IDENTIFICATION

SDS Identification: HexForce™ F3 and F16 Finish
SDS Number: 439-3227-4055-316G-20 **Date:** December 1, 2009 **Page:** 1 of 7
Supersedes SDS: 439-3227-3160-0000-19

Manufacturer:
Hexcel®
11711 Dublin Blvd.
Dublin, CA 94568

Emergency Telephone Number:
800-433-5072 (24-Hour) Hexcel®

Information Telephone Number:
830-379-1580 (Normal Business Hours-CT)

Product Identification: HexForce™ F3 and F16 Finish: Fiberglass

Chemical Family: Woven Fiberglass Fabric using E-Glass or S2 Glass Fibers with a Chromium (Cr^{3+}) Methacrylate Finish applied.

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS® Number	% by Weight	OSHA (PEL)	ACGIH® (TLV®)
Fiberglass fiber, synthetic, vitreous, continuous filament	65997-17-3	98.8-99.9	15 mg/m^3 (Total) 5 mg/m^3 (Respirable)	5 mg/m^3 (Inhalable) 1 f/cc (Respirable)

This product is not classified as a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

Where specific exposure limits for component dusts are not established, the levels provided for (Total/Inhalable) dust and (Respirable) fraction reflect the classification of Particulate Not Otherwise Regulated (PNOR) by OSHA or Classified (PNOC) by ACGIH®.

Section 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Appearance and Odor:
White fibers, with a greenish tint, woven into fabrics of varying weight, width and thickness, depending on the style, with a finish applied, with no distinctive odor. There may be a sealant applied to the edges of slit fabrics (less-than-full-width) to prevent fibers unwinding during use.

Statement of Hazard:
Warning! May cause temporary mechanical irritation of the eyes, skin or upper respiratory tract.

Dust or particulate from machining, grinding or sawing the cured product may cause skin, eye and upper respiratory irritation and possible dermatitis.

Section 3: HAZARDS IDENTIFICATION (Continued)

Primary Routes of Exposure:

Eyes--Yes Skin--Yes Inhalation--Yes Ingestion--No

HMIS® Rating:

Health--1 Flammability--0 Reactivity--0 Special--None

Potential Health Effects:

Eye: Contact may cause mechanical irritation to the eyes. Dust or particulate from machining, grinding or sawing the cured product may cause mechanical irritation.

Skin: Contact may cause mechanical irritation to the skin and possible dermatitis at clothing contact pressure points such as cuffs or collars. Dust or particulate from machining, grinding or sawing the cured product may cause mechanical irritation and possible dermatitis.

Inhalation: May cause mechanical irritation to the upper respiratory tract. Dust or particulate from machining, grinding or sawing the cured product may cause mechanical irritation to the upper respiratory tract.

Ingestion: Very unlikely. If a large amount of the product or the dust or particulate from the machining, grinding or sawing the cured is swallowed, seek medical attention immediately.

Medical Conditions Aggravated By Exposure: Preexisting conditions such as respiratory or skin disorders may be aggravated by exposure to the product or to the dust or particulate from machining, grinding or sawing the cured product.

Carcinogenic Information: None of the finish components present in this material at concentrations equal to or greater than 0.1 % are listed or regulated by NTP, OSHA or ACGIH® as a carcinogen. Glass filament is listed by IARC as Group 3 (not classifiable as to a human carcinogen).

Other:	**OSHA (PEL)**	**ACGIH® (TLV®)**
Exposure limits for cured product dust as [Particulate Not Otherwise Regulated (PNOR) by OSHA or Classified (PNOC) by ACGIH®]:	15 mg/m^3 (Total) 5 mg/m^3 (Respirable)	10 mg/m^3 (Inhalable) 3 mg/m^3 (Respirable)

Section 4: FIRST AID MEASURES

Eye: In case of contact with the product or the cured product dust or particulate, immediately flush eyes with large amounts of water for at least 15 minutes, keeping the eyelids open. Get medical attention immediately.

Skin: In case of contact with the product or the cured product dust or particulate, immediately wash skin with mild soap and room temperature to cool running water. Use a washcloth to help remove the fibers. To avoid further irritation, do not rub or scratch irritated areas. Rubbing or scratching may force fibers into the skin. Get medical attention immediately if the irritation persists.

Section 4: FIRST AID MEASURES (Continued)

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, qualified personnel may administer oxygen. Get medical attention immediately.

Ingestion: Ingestion of the product or the dust or particulate from it is unlikely. If swallowed, get medical attention immediately.

Section 5: FIRE FIGHTING MEASURES

Flash Point Method of Determination: Not determined

Means of Extinction: Use water spray, dry chemical or CO_2 to extinguish fires.

Special Fire Hazards: Avoid exposure through use of a self-contained, positive-pressure breathing apparatus.

Section 6: ACCIDENTAL RELEASE MEASURES

Procedures in case of Accidental Release or Leakage: Avoid contact with skin, eyes or clothing (See Section 8). Clean up material, put into a suitable container and dispose of properly (See Section 13).

Section 7: HANDLING AND STORAGE

Precautions to be taken in Handling and Storage: Store in a cool, dry place. Maintain sealed against contamination from dirt and moisture.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection: Avoid eye contact. Wear coverall goggles, as necessary, to prevent irritation, if airborne dust, fibers or particulate are present. Wear safety glasses with side shields, as necessary, if airborne dust, fibers or particulate are present when machining, grinding or sawing the cured product.

Skin Protection: Wear protective clothing such as a loose fitting, long sleeved shirt that covers to the base of the neck, long pants and gloves, as necessary, to prevent irritation. Skin irritation is known to occur primarily at pressure points such as around the neck, wrist, waist and between the fingers.

Respiratory Protection: Not ordinarily required. If sufficient dust, fibers or particulate are generated during use of the product or when machining, grinding or sawing the cured product, use a NIOSH approved dust respirator.

Ventilation: Use local exhaust sufficient to control dust, fibers or particulate generated. If an exhaust ventilation is not available or is inadequate, use a NIOSH approved dust respirator.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

General Hygiene Recommendations: Before eating, drinking, smoking or using toilet facilities, wash face and hands thoroughly with soap and water. Remove any contaminated clothing and launder before reuse. Use vacuum equipment to remove fibers, dust or particulate from clothing and work areas. Compressed air is not recommended.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor... White fibers, with a greenish tint, woven into fabrics of varying weight, width and thickness, depending on the style, with a finish applied, with no distinctive odor. There may be a sealant applied to the edges of slit (less-than-full-width) fabrics to prevent fibers unwinding during use.

Melting Point (^{o}F/^{o}C)..... >1292^{o}F/>700^{o}C
Specific Gravity (Water=1)..... 2.60
pH of Undiluted Product.....Not determined
Volatile [Percent (%) by Weight]..... 0
Percent (%) VOC.....Same as the % Volatile Content
Solubility in Water..... Insoluble

Section 10: STABILITY AND REACTIVITY

Stability: Stable under proper handling and storage conditions

Incompatible Materials: None

Products evolved from Heat of Combustion or Decomposition: The products of combustion and decomposition depend on other materials present in the fire and the actual conditions of the fire. Burning will decompose the finish and release carbon, nitrogen and silicon oxides, water, ammonia, hydrogen chloride, traces of incompletely burned carbon products and other unidentified gases and vapors that may be toxic. Avoid inhalation.

Hazardous Polymerization: Will not occur under proper conditions of use. Rapid heating of the product in bulk may produce an uncontrolled exothermic reaction that may char and decompose the finish, generating unidentified gases and vapors that may be toxic. Avoid inhalation.

Section 11: TOXICOLOGICAL INFORMATION

Component Toxicity Data:
Median Lethal Dose (Species):
Oral (LD_{50})...Not determined
Inhalation (LC_{50})...Not determined
Dermal (LD_{50})...Not determined

Irritation Index, Estimation of Irritation (Species):
Skin...Not determined
Eye...Not determined
Inhalation...Not determined

Section 12: ECOLOGICAL INFORMATION

No ecological data has been determined.

Section 13: DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Material for disposal should be placed in appropriate sealed containers to avoid potential human and environmental exposure. It is the responsibility of the generator to comply with all federal, state, provincial and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the U.S., Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification.

Section 14: TRANSPORT INFORMATION

DOT:
Proper Shipping Name..... Not regulated
Hazard Class..... Not regulated
Identification Number.....Not regulated
Packing Group.....Not regulated
Label Required..... None

Section 15: REGULATORY INFORMATION

SARA Title III:
Section 302/304 Extremely Hazardous Substance:
None

Section 311 Hazardous Categorization:
None

Section 313 Toxic Chemicals:
None

CERCLA Section 102(A) and Hazardous Substance:
None

RCRA Information: Currently, this product is not listed in federal hazardous waste regulations 40 CFR, Part 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may also apply if they are different from the federal regulation. It is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

WHMIS (Canada):
Classification:
None

Section 15: REGULATORY INFORMATION (Continued)

WHMIS (Canada) (continued):
"This product has been classified in accordance with hazard criteria of the "Controlled Products Regulations" and this SDS contains all the information required by the "Controlled Products Regulations."

Ingredient Disclosure List:
None

U.S., EPA and TSCA Information: This product is an article as defined by TSCA and is not required to be listed in the TSCA Inventory.

Ozone Depletion Information: This product does not contain or is not manufactured with ozone depleting substances as identified in Title VI, Clean Air Act "Stratospheric Ozone

Section 16: OTHER INFORMATION

Special Precautions: None

Explanation and Disclaimer: Wherever such words or phrases as "hazardous," "toxic," "carcinogen," etc. appear herein, they are used as defined or described under state employee right-to-know laws, Federal OSHA laws or the direct sources for these laws such as the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), etc. The use of such words or phrases should not be taken to mean that we deem or imply any substance or exposure to be toxic, hazardous or otherwise harmful. **Any exposure can only be understood within the entire context of its occurrence, which includes such factors as the substance's characteristics as defined in the SDS, amount and duration of exposures, other chemicals present and preexisting individual differences in response to the exposure.**

The data provided in this SDS is based on the information received from our raw material suppliers and other sources believed to be reliable. We are supplying you this data solely in compliance with the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200 and other Federal and state laws as described in Section 15: Regulatory Information.

The information contained in this SDS is proprietary and confidential to Hexcel Corporation. This SDS and the information in it are not to be used for purposes other than compliance with the Federal OSHA Hazard Communication Standard. If you have received this SDS from any other source than Hexcel Corporation or its authorized agent, the information contained in it may have been modified from the original document and it may not be the most current revision.

Liability, if any, for use of this product is limited to the terms contained in our sale terms and conditions. We do not in any way warrant (expressed or implied, including any implied warranty for merchantability or fitness for a particular purpose) the data contained or the product described in this SDS. Additionally, we do not warrant that the product will not infringe any patent or other proprietary or property rights of others.

Section 16: OTHER INFORMATION (Continued)

Prepared by: Darryl Ong,
Hexcel Corporate Safety and Health,
Senior Product Safety Information Specialist

Revision History:
12/18/09 update description
01/28/09 deleted “CS” nomenclature
10/01/07 changed information telephone number and updated contacts
03/19/07 deleted Prop 65, product is not manufactured in Calif.

Material Safetv Data Sheet SH101

Effective Date: 10/29/2012 Previous Revision date: 00/00/0000 Date Printed: 6/13/2014

SECTION 1 Product and Company Information

PRODUCT NAME: SeamTek ® Standard Hardener, SH101
GENERIC NAME: Epoxy Hardener

DISTRIBUTOR: LSP Performance Resins
124 Speer Road
Chestertown, MD 21620

Chemtrec
24 Hour Emergency Number 1-800-424-9300
Information Number: 1-800-666-6216

Comments: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/ECC and Canadian Hazardous Products Act

SECTION 2 Hazards Identification

Emergency Overview
OSHA Hazardous
Target Organ Effect: Skin Sensitizer, Irritant
Target Organs: Respiratory, eyes, Skin
Physical Appearance: Viscous liquid
Immediate Concerns: Skin Irritation

Potential Health Effects
Skin: Will cause irritation and dermatitis, repeated overexposure will cause dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.
Inhalation and Ingestion: Irritation to system

Carcinogenicity:
Not listed by NTP
Not Listed by IARC
Not Listed by OSHA

Reproductive Toxicity
Reproductive Effects : Not Available
Teratogenic Effects: Not Available

Signs and Symptoms of Overexposure: Irritation of Skin

Medical Conditions Aggravated:
Allergy, Skin Disorders

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Health		Environmental	Physical
Acute Toxicity, Oral	Category 5	Not Classified	Not Classified
Skin Irritant	Category 2		
Serious Eye Damage	Category 1		
Skin Sensitization	Category 1		

Pictogram:

Signal Word Danger

Hazard Statements	Precautionary Statements
H303 Maybe harmful if swallowed H315 Causes skin irritation H317 May cause an allergic skin reaction H318 Causes serious eye damage	P280 Wear protective gloves/protective clothing/eye protection/face protection P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3 Composition / Information on Ingredients

Chemical Name	CAS	Wt%
polyoxalkyleneamine	9046100	
Triethylene glycol diamine	929599	
Epoxy curing agent	mixture	
Alkyl phenol	84852153	
Alpha hydroxyl toluene	100-51-6	

SECTION 4 First Aid Measures

EYE CONTACT: Get medical attention immediately. Immediately flush eyes gently with large amounts of water, holding lids open for at least 20-30 minutes, retracting eyelids often. Check for, and remove contact lenses.
SKIN CONTACT: Get medical attention immediately. Flush contaminated skin with plenty of WATER. Do NOT wash with solvents. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Continue to rinse for at least 10 minutes. May cause irritation and allergic reaction. Seek medical advice if irritation develops or persists.
INHALATION: Move exposed person to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate make of self contained breathing apparatus. Keep person warm and at rest. If not breathing or breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway
INGESTION: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Advice to physicians: Symptomatic and supportive therapy as needed. May aggravate skin conditions.

SECTION 5 Fire Fighting Measures

Conditions of Flammability
Not flammable or combustible
Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous Decomposition Products
Hazardous decomposition products formed under fire conditions – Carbon Oxides
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.

SECTION 6 Accidental Release Measures

Personal Precautions
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions
Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air.

Methods and Materials for Containment and Cleaning Up
Stop the leak if it can be done without risk. Move containers from the spill area. Prevent entry into sewers, water ways or soils. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth. Place in container for disposal according to local regulations via a licensed waste disposal contractor. Contaminated absorbent materials may pose the same hazards as the spilled product. See section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 Handling and Storage

Precautions for Safe Handling Can cause skin and eye irritation and allergic skin reaction.

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do no store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8 Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Hazardous Component	PEL	STEL	TLV	Other
polyoxalkyleneamine	NE	NE	NE	NE
Triethylene glycol diamine	NE	NE	NE	NE
Epoxy curing agent	NE	NE	NE	NE
Alkyl phenol	NE	NE	NE	NE
Alpha hydroxyl toluene	NE	NE	NE	NE

ENGINEERING CONTROLS Use local exhaust ventilation to maintain airborne concentrations below exposure limits. Respiratory protection may be required in addition to general room ventilation.

PERSONAL PROTECTIVE EQUIPMENT Use a properly fitted, air-purifying or air supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards or the product and the safe working limits of the selected respirator.

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 AND BODY 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. Use of barrier cream is recommended. Clean equipment thoroughly after each use. Discard contaminated leather shoes and canvas sneakers.

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OTHER HYGENIC 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.

SECTION 9 Physical and Chemical Properties

Appearance Form Color pH Melting/Freezing Temperature Boiling Point	 Liquid Colorless to Amber Not available 40 C/ 104 F 336 C/ 637 F
Flash Point	> 95 C/ 200 F
Ignition Temperature	Not available
Autoignition Temperature Lower explosive limit; na	Not available Upper explosive limit: na
Vapor Pressure	<0.1 mm Hg
Vapor Density (air=1)	Not available
Specific Gravity (water=1 @39.2F)	1.14 at 25 C/77F
Evaporation Rate (Bac=1)	None
Odor	Light possible phenol
Odor threshold	Not available

SECTION 10 Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

No data available

Conditions to Avoid

Avoid strong acids, bases in bulk and elevated temperatures

Materials to Avoid

Reactive or incompatible with: acids, oxidizers, amines

Hazardous Decomposition Products

Decomposition products formed under fire conditions may include: Carbon oxides, Nitrogen oxides, Aldehydes.

SECTION 11 Toxicological Information

Acute Toxicity

Oral LD50	Rat > 4000 mg/kg.
Dermal LD50	Rabbit 20,000 mg/kg
Inhalation LC50	No data available

Skin Corrosion/Irritation

Skin Irritant

Serious Eye Damage/Eye Irritation

Eye Irritant

Eyes Rabbit

Severe eye irritation – 24 H

Respiratory or Skin Sensitization

May cause skin or respiratory sensitization

Mutagenicity

Mouse Skin

Carcinogenic by RTECS Criteria

liver, ovarian, thyroid

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

SECTION 12 Ecological Information

Aquatic Ecotoxicity

No data available

Biodegradability

Persistant Not readily biodegradable

Mobility in soil

No data available

SECTION 13 Disposal Considerations

Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residuals. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14 Transport Information

DOT (US)

Not Regulated

IMDG

Not Regulated

TDG

Not Regulated

SECTION 15 Regulatory Information

TSCA Inventory Status

All components are listed or exempt

OSHA Hazards

Skin Sensitizer Irritant
Corrosive Material

HMIS Classification		NFPA Rating
Health Hazard;	3	3
Flammability	1	0
Physical Hazards	0	0

Sara Title III: Section 311/312 Hazard Class

Acute Health Hazard, Chronic Health Hazard

Sara Title III: Section 313 (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.

California Proposition 65 Information:

This product contains, no listed substances known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16 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).

LSP PERFORMANCE RESINS 124 Speer Road Chestertown, MD 21620
800.638.9874 FAX 410.778.3625 web www.lspinc.com

Material Safetv Data Sheet SR101

Effective Date: 10/29/2012 Previous Revision date: 00/00/0000 Date Printed: 6/13/2014

SECTION 1 Product and Company Information

PRODUCT NAME: SeamTek ® Standard Resin, SR101
GENERIC NAME: Epoxy Resin

DISTRIBUTOR: LSP Performance Resins
124 Speer Road
Chestertown, MD 21620

Chemtrec
24 Hour Emergency Number 1-800-424-9300
Information Number: 1-800-666-6216

Comments: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/ECC and Canadian Hazardous Products Act

SECTION 2 Hazards Identification

Emergency Overview
OSHA Hazardous
Target Organ Effect: Skin Sensitizer, Irritant
Target Organs: Respiratory, eyes, Skin
Physical Appearance: Viscous liquid
Immediate Concerns: Skin Irritation

Potential Health Effects
Skin: Will cause irritation and dermatitis, repeated overexposure will cause dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.
Inhalation and Ingestion: Irritation to system

Carcinogenicity:
Not listed by NTP
Not Listed by IARC
Not Listed by OSHA

Reproductive Toxicity
Reproductive Effects : Not Available
Teratogenic Effects: Not Available

Signs and Symptoms of Overexposure: Irritation of Skin

Medical Conditions Aggravated:
Allergy, Skin Disorders

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Health		Environmental	Physical
Acute Toxicity, Oral	Category 5	Not Classified	Not Classified
Skin Irritant	Category 2		
Serious Eye Damage	Category 1		
Skin Sensitization	Category 1		

Pictogram:

Signal Word Danger

Hazard Statements	Precautionary Statements
H303 Maybe harmful if swallowed H315 Causes skin irritation H317 May cause an allergic skin reaction H318 Causes serious eye damage	P280 Wear protective gloves/protective clothing/eye protection/face protection P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3 Composition / Information on Ingredients

Chemical Name	CAS	Wt%
diglycidyl ether bisphenol A epoxy resin	25085-99-8	
Aliphatic epoxide	68609-97-2	
Alkylated phenol	AN123581	
2-methyl-2,4-pentanediol	107-41-5	
Alkyl phenol	84852153	

SECTION 4 First Aid Measures

EYE CONTACT: Get medical attention immediately. Immediately flush eyes gently with large amounts of water, holding lids open for at least 20-30 minutes, retracting eyelids often. Check for, and remove contact lenses.

SKIN CONTACT: Get medical attention immediately. Flush contaminated skin with plenty of WATER. Do NOT wash with solvents. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Continue to rinse for at least 10 minutes. May cause irritation and allergic reaction. Seek medical advice if irritation develops or persists.

INHALATION: Move exposed person to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate make of self contained breathing apparatus. Keep person warm and at rest. If not breathing or breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway

INGESTION: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Advise to physicians: Symptomatic and supportive therapy as needed. May aggravate skin conditions.

SECTION 5 Fire Fighting Measures

Conditions of Flammability

Not flammable or combustible

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions – Carbon Oxides

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.

SECTION 6 Accidental Release Measures

Personal Precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions

Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air.

Methods and Materials for Containment and Cleaning Up

Stop the leak if it can be done without risk. Move containers from the spill area. Prevent entry into sewers, water ways or soils. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth. Place in container for disposal according to local regulations via a licensed waste disposal contractor. Contaminated absorbent materials may pose the same hazards as the spilled product. See section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 Handling and Storage

Precautions for Safe Handling

Can cause skin and eye irritation and allergic skin reaction.

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not

reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do no store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8 Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Hazardous Component	PEL	STEL	TLV	Other
diglycidyl ether bisphenol A epoxy resin	NE	NE	NE	NE
Aliphatic epoxide	NE	NE	NE	NE
Alkylated phenol	NE	NE	NE	NE
2-methyl-2,4-pentanediol	25 ppm	NE	25 ppm	NE
Alkyl phenol	NE	NE	NE	NE

ENGINEERING CONTROLS Use local exhaust ventilation to maintain airborne concentrations below exposure limits. Respiratory protection may be required in addition to general room ventilation.

PERSONAL PROTECTIVE EQUIPMENT Use a properly fitted, air-purifying or air supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards or the product and the safe working limits of the selected respirator.

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 AND BODY 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. Use of barrier cream is recommended. Clean equipment thoroughly after each use. Discard contaminated leather shoes and canvas sneakers.

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OTHER HYGENIC 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.

SECTION 9 Physical and Chemical Properties

Appearance	
Form	Liquid
Color	Colorless to Amber
pH	Not available
Melting/Freezing Temperature	40 C/ 104 F
Boiling Point	336 C/ 637 F
Flash Point	> 95 C/ 200 F
Ignition Temperature	Not available
Autoignition Temperature	Not available
Lower explosive limit; na	Upper explosive limit: na
Vapor Pressure	<0.1 mm Hg
Vapor Density (air=1)	Not available
Specific Gravity (water=1 @39.2F)	1.14 at 25 C/77F
Evaporation Rate (Bac=1)	None
Odor	Light possible phenol
Odor threshold	Not available

SECTION 10 Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

No data available

Conditions to Avoid

Avoid strong acids, bases in bulk and elevated temperatures

Materials to Avoid

Reactive or incompatible with: acids, oxidizers, amines

Hazardous Decomposition Products

Decomposition products formed under fire conditions may include: Carbon oxides, Nitrogen oxides, Aldehydes.

SECTION 11 Toxicological Information

Acute Toxicity

Oral LD50	Rat > 4000 mg/kg.
Dermal LD50	Rabbit 20,000 mg/kg
Inhalation LC50	No data available

Skin Corrosion/Irritation

Skin	Irritant

Serious Eye Damage/Eye Irritation

Eye	Irritant
Eyes	Rabbit

Severe eye irritation – 24 H

Respiratory or Skin Sensitization

May cause skin or respiratory sensitization

Mutagenicity

Mouse	Skin

Carcinogenic by RTECS Criteria
liver, ovarian, thyroid

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

SECTION 12 Ecological Information

Aquatic Ecotoxicity

No data available

Biodegradability

Persistant	Not readily biodegradable

Mobility in soil

No data available

SECTION 13 Disposal Considerations

Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residuals. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14 Transport Information

DOT (US)

Not Regulated

IMDG

Not Regulated

TDG

Not Regulated

SECTION 15 Regulatory Information

TSCA Inventory Status

All components are listed or exempt

OSHA Hazards

Skin Sensitizer Irritant

Corrosive Material

HMIS Classification		NFPA Rating	
Health Hazard;	2		2
Flammability	1		0
Physical Hazards	0		0

Sara Title III: Section 311/312 Hazard Class

Acute Health Hazard, Chronic Health Hazard

Sara Title III: Section 313 (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.

California Proposition 65 Information:

This product contains, no listed substances known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16 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).

LSP PERFORMANCE RESINS 124 Speer Road Chestertown, MD 21620

Material Safetv Data Sheet TRP354

Effective Date: 07/15/96 Previous Revision date: 00/00/0000 Date Printed: 6/5/2014

SECTION 1 Product and Company Information

PRODUCT NAME: SeamTek® Topcoat Resin TRP354 (all colors)
GENERIC NAME: Pigmented Epoxy Resin

DISTRIBUTOR: LSP Performance Resins
124 Speer Road
Chestertown, MD 21620

Chemtrec
24 Hour Emergency Number 1-800-424-9300
Information Number: 1-800-666-6216

Comments: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/ECC and Canadian Hazardous Products Act

SECTION 2 Hazards Identification

Emergency Overview
OSHA Hazardous
Target Organ Effect: Skin Sensitizer, Irritant
Target Organs: Respiratory, eyes, Skin
Physical Appearance: Viscous liquid
Immediate Concerns: Skin Irritation

Potential Health Effects
Skin: Will cause irritation and dermatitis, repeated overexposure will cause dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.
Inhalation and Ingestion: Irritation to system

Carcinogenicity:
Not listed by NTP
Not Listed by IARC
Not Listed by OSHA

Reproductive Toxicity
Reproductive Effects : Not Available
Teratogenic Effects: Not Available

Signs and Symptoms of Overexposure: Irritation of Skin

Medical Conditions Aggravated:
Allergy, Skin Disorders

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Health		Environmental	Physical
Acute Toxicity, Oral	Category 5	Not Classified	Not Classified
Skin Irritant	Category 2		
Serious Eye Damage	Category 1		
Skin Sensitization	Category 1		

Pictogram:

Signal Word Danger

Hazard Statements		Precautionary Statements
H303	May be harmful if swallowed	P280 Wear protective gloves/protective clothing/eye protection/face protection
H315	Causes skin irritation	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
H317	May cause an allergic skin reaction	
H318	Causes serious eye damage	

SECTION 3 Composition / Information on Ingredients

Chemical Name	CAS	Wt%
Diglycidyl ether bisphenol A epoxy resin	25085-99-8	
Aliphatic epoxide	Mixture	
Salt of unsat'd amides and acidic esters	Mixture	
Barium sulfate	7727-43-7	5-10
Alpha hydroxide toluene	100-51-6	
Methyl n-amyl ketone	110-43-0	0-2

SECTION 4 First Aid Measures

EYE CONTACT: Get medical attention immediately. Immediately flush eyes gently with large amounts of water, holding lids open for at least 20-30 minutes, retracting eyelids often. Check for, and remove contact lenses.
SKIN CONTACT: Get medical attention immediately. Flush contaminated skin with plenty of WATER. Do NOT wash with solvents. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Continue to rinse for at least 10 minutes. May cause irritation and allergic reaction. Seek medical advice if irritation develops or persists.
INHALATION: Move exposed person to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate make of self contained breathing apparatus. Keep person warm and at rest. If not breathing or breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway
INGESTION: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Advice to physicians: Symptomatic and supportive therapy as needed. May aggravate skin conditions.

SECTION 5 Fire Fighting Measures

Conditions of Flammability
Not flammable or combustible
Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous Decomposition Products
Hazardous decomposition products formed under fire conditions – Carbon Oxides
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.

SECTION 6 Accidental Release Measures

Personal Precautions
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions
Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air.

Methods and Materials for Containment and Cleaning Up
Stop the leak if it can be done without risk. Move containers from the spill area. Prevent entry into sewers, water ways or soils. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth. Place in container for disposal according to local regulations via a licensed waste disposal contractor. Contaminated absorbent materials may pose the same hazards as the spilled product. See section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 Handling and Storage

Precautions for Safe Handling Can cause skin and eye irritation and allergic skin reaction.

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do no store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8 Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Hazardous Component	PEL	STEL	TLV	Other
Diglycidyl ether bisphenol A epoxy resin	NE	NE	NE	NE
Aliphatic epoxide	NE	NE	NE	NE
Salt of unsat'd amides and acidic esters	NE	NE	NE	NE
Barium sulfate	10 mg/m3	NE	10 mg/m3	NE
Alpha hydroxide toluene	NE	NE	NE	NE
Methyl n-amyl ketone	NE	NE	NE	NE

ENGINEERING CONTROLS Use local exhaust ventilation to maintain airborne concentrations below exposure limits. Respiratory protection may be required in addition to general room ventilation.

PERSONAL PROTECTIVE EQUIPMENT Use a properly fitted, air-purifying or air supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards or the product and the safe working limits of the selected respirator.

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 AND BODY 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. Use of barrier cream is recommended. Clean equipment thoroughly after each use. Discard contaminated leather shoes and canvas sneakers.

OTHER HYGENIC 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.

SECTION 9 Physical and Chemical Properties

Appearance	
Form	Viscous Liquid
Color	various
pH	Not available
Melting/Freezing Temperature	N/A
Boiling Point	N/A
Flash Point	>200 F
Ignition Temperature	Not available
Autoignition Temperature	Not available
Lower explosive limit; na	Upper explosive limit: na
Vapor Pressure	Not available
Vapor Density (air=1)	Not available
Specific Gravity (water=1 @39.2F)	1.4
Evaporation Rate (Bac=1)	None
Odor	Mild, sweet
Odor threshold	Not available

SECTION 10 Stability and Reactivity

Chemical Stability
Stable under recommended storage conditions

Possibility of Hazardous Reactions
No data available

Conditions to Avoid
Avoid strong acids, bases in bulk and elevated temperatures

Materials to Avoid
Reactive or incompatible with: acids, oxidizers, amines

Hazardous Decomposition Products
Decomposition products formed under fire conditions may include: Carbon oxides, Nitrogen oxides, Aldehydes.

SECTION 11 Toxicological Information

Acute Toxicity

Oral LD50	Rat > 4000 mg/kg.
Dermal LD50	Rabbit 20,000 mg/kg
Inhalation LC50	No data available

Skin Corrosion/Irritation
Skin Irritant

Serious Eye Damage/Eye Irritation
Eye Irritant
Eyes Rabbit
Severe eye irritation – 24 H

Respiratory or Skin Sensitization
May cause skin or respiratory sensitization

Mutagenicity
Mouse Skin
Carcinogenic by RTECS Criteria
liver, ovarian, thyroid

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

SECTION 12 Ecological Information

Aquatic Ecotoxicity
No data available

Biodegradability
Persistant Not readily biodegradable

Mobility in soil
No data available

SECTION 13 Disposal Considerations

Waste Disposal
The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residuals. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14 Transport Information

DOT (US)

Not Regulated

IMDG

Not Regulated

TDG

Not Regulated

SECTION 15 Regulatory Information

TSCA Inventory Status

All components are listed or exempt

OSHA Hazards

Skin Sensitizer Irritant
Corrosive Material

HMIS Classification		NFPA Rating	
Health Hazard;	1		1
Flammability	1		0
Physical Hazards	0		0

Sara Title III: Section 311/312 Hazard Class

Acute Health Hazard, Chronic Health Hazard

Sara Title III: Section 313 (40CFR370)

Barium sulfate is listed in SARA III, part 372, section 313

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.

California Proposition 65 Information:

This product contains, no listed substances known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16 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).

LSP PERFORMANCE RESINS 124 Speer Road Chestertown, MD 21620
800.638.9874 FAX 410.778.3625 web www.lspinc.com

Material Safetv Data Sheet UV13

Effective Date: 01/05/11 Previous Revision date: 00/00/0000 Date Printed: 6/13/2014

SECTION 1 Product and Company Information

PRODUCT NAME: SeamTek ® UV13 Clear surface Coat
GENERIC NAME: Vinyl ester resin

DISTRIBUTOR: LSP Performance Resins
124 Speer Road
Chestertown, MD 21620

Chemtrec
24 Hour Emergency Number 1-800-424-9300
Information Number: 1-800-666-6216

Comments: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/ECC and Canadian Hazardous Products Act

SECTION 2 Hazards Identification

Emergency Overview – no known huma or animal health effects dada – these are expectations
OSHA Hazardous
Target Organ Effect: Skin Sensitizer, Irritant
Target Organs: Respiratory, eyes, Skin
Physical Appearance: Viscous liquid
Immediate Concerns: Skin Irritation

Potential Health Effects
Skin: Will cause irritation and dermatitis, repeated overexposure will cause dermatitis and sensitization. Sensitized persons may experience rapid irritation of skin upon exposure.
Inhalation and Ingestion: Irritation to system

Carcinogenicity:
Not listed by NTP
Not Listed by IARC
Not Listed by OSHA

Reproductive Toxicity
Reproductive Effects : Not Available
Teratogenic Effects: Not Available

Signs and Symptoms of Overexposure: Irritation of Skin,

Medical Conditions Aggravated:
Allergy, Skin Disorders

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Health		Environmental	Physical
Acute Toxicity, Oral	Category 5	Not Classified	Not Classified
Skin Irritant	Category 2		
Serious Eye Damage	Category 1		
Skin Sensitization	Category 1		

Pictogram:

Signal Word Danger

Hazard Statements	Precautionary Statements
H303 Maybe harmful if swallowed H315 Causes skin irritation H317 May cause an allergic skin reaction H318 Causes serious eye damage	P280 Wear protective gloves/protective clothing/eye protection/face protection P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3 Composition / Information on Ingredients

Chemical Name	CAS	Wt%
Unsaturated Vinyl ester Resin	See Index	Ap 25-85
Monomer(s)	See index	Ap 15-75

SECTION 4 First Aid Measures

EYE CONTACT: Get medical attention immediately. Immediately flush eyes gently with large amounts of water, holding lids open for at least 20-30 minutes, retracting eyelids often. Check for, and remove contact lenses.

SKIN CONTACT: Get medical attention immediately. Flush contaminated skin with plenty of WATER. Do NOT wash with solvents. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Continue to rinse for at least 15 minutes. If sticky, use waterless cleaner first. May cause irritation and allergic reaction. Seek medical advice if irritation develops or persists.

INHALATION: Move exposed person to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate make of self contained breathing apparatus. Keep person warm and at rest. If not breathing or breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. PROMT ACTION IS ESSENTIAL

INGESTION: If large quantity swallowed, give lukewarm water (pint) if victim is conscious. Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting as risk of damage to lungs exceeds poisoning risk. Never give anything by mouth to an unconscious person.

Advice to physicians: Symptomatic and supportive therapy as needed. May aggravate skin conditions.

SECTION 5 Fire Fighting Measures

Conditions of Flammability

High temperature, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization reaction, generating heat/pressure. Closed containers may rupture or explode during runaway polymerization.

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions – Carbon Oxides

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.

SECTION 6 Accidental Release Measures

Personal Precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions

Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Notify authorities of any releases to sewers, soils, waterways or air.

Methods and Materials for Containment and Cleaning Up

Stop the leak if it can be done without risk. Move containers from the spill area. Prevent entry into sewers, water ways or soils. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth. Place in container for disposal according to local regulations via a licensed waste disposal contractor. Contaminated absorbent materials may pose the same hazards as the spilled product. See section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 Handling and Storage

Precautions for Safe Handling Can cause skin and eye irritation and allergic skin reaction.

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear

appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Avoid exposure to sources of UV light. Store out of direct sunlight. 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 below 32F – inhibitor can separate as a solid. If frozen, warm and remix material gently <90F) . Prevent moisture contact**.** Keep container tightly closed and sealed until ready for use. Use only non sparking tools. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do no store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8 Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

Hazardous Component	PEL	STEL	TLV	Other
	NE	NE	NE	NE
	NE	NE	NE	NE
	NE	NE	NE	NE
	NE	NE	NE	NE
	NE	NE	NE	NE

ENGINEERING CONTROLS Use local exhaust ventilation to maintain airborne concentrations below exposure limits. Respiratory protection may be required in addition to general room ventilation.

PERSONAL PROTECTIVE EQUIPMENT A properly fitted, NIOSH/MSA approved respiratory protection equipment is recommended. Respirator selection must be based on known or anticipated exposure levels, the hazards or the product and the safe working limits of the selected respirator.

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 AND BODY 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. Use of barrier cream is recommended. Clean equipment thoroughly after each use. Discard contaminated leather shoes and canvas sneakers.

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OTHER HYGENIC 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.

SECTION 9 Physical and Chemical Properties

Appearance Form Color pH Melting/Freezing Temperature Boiling Point	 Viscous Liquid Straw to light yellow Not available Na Na
Flash Point	> 95 C/ 200 F
Ignition Temperature	Not available
Autoignition Temperature Lower explosive limit; na	Not available Upper explosive limit: na
Vapor Pressure	Na

Vapor Density (air=1)	Not available
Specific Gravity (water=1 @39.2F)	AP 1.20 @25C/77C
Evaporation Rate (Bac=1)	N/DA
Odor	Mild to sweet acrylic
Odor threshold	Not available

SECTION 10 Stability and Reactivity

Chemical Stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

No data available

Conditions to Avoid

High temperatures, localized heat sources (ie) drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, UV radiation, inert gas blanketing,

Materials to Avoid

Reactive or incompatible with: acids, strong oxidizers, strong reducers, free radical initiators, inert gas, oxygen scavengers

Hazardous Decomposition Products

Decomposition products formed under fire conditions may include: Carbon oxides, acrid smoke fumes, other toxic vapors.

SECTION 11 Toxicological Information

Acute Toxicity

Oral LD50	.
Dermal LD50	
Inhalation LC50	No data available

Skin Corrosion/Irritation

Skin	Irritant

Serious Eye Damage/Eye Irritation

Eye	Irritant
Eyes	Rabbit

Respiratory or Skin Sensitization

May cause skin or respiratory sensitization

Mutagenicity

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as carcinogen or potential carcinogen by ACGIH

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

SECTION 12 Ecological Information

Aquatic Ecotoxicity

No data available

Biodegradability

Persistant	Not readily biodegradable

Mobility in soil

No data available

SECTION 13 Disposal Considerations

Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residuals. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14 Transport Information

DOT (US)

Not Regulated

IMDG

Not Regulated

TDG

Not Regulated

SECTION 15 Regulatory Information

TSCA Inventory Status

All components are listed or exempt

OSHA Hazards

Skin Sensitizer
Corrosive Material
Irritant

HMIS Classification		NFPA Rating
Health Hazard;	2	
Flammability	1	0
Physical Hazards	2	0

Sara Title III: Section 311/312 Hazard Class

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

Sara Title III: Section 313 (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.

California Proposition 65 Information:

This product contains, no listed substances known to the state of California to cause cancer and/or reproductive toxicity.

SECTION 16 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).