

## Safety Data Sheet

### SECTION 1: PRODUCTION IDENTIFICATION

**Product Identifier:**

Trade Name: StellarFlex SP®  
Product Codes: Various  
SDS Number: C-01-001  
Synonyms: StellarFlex SP Concentrate, StellarFlex SP Blend Stock, StellarFlex Performance Graded Asphalt Binders All Grades, StellarFlex SP PG 64-28M, PG 70-22M, PG 76-22, PG76-22 Port, PG 82-22, PG 82-22SP, StellarFlex FR, BDWSC, PG HiMA; Warm Mix Asphalt All Grades – PG 70-22WM, PG 76-22WM, PG 82-22 WM, StellarFlex FR WM, Flexguard, FlexguardWM,

Product Family: Asphalt Product  
Product Description: Asphalt Cement  
Date of first Issue: October 2, 2014

Version: 01  
Supersedes date: N/A

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Road paving grade and home shingle roofing (tar)  
Uses advised against: None known

**Details of the supplier of the safety data sheet**

Company name: Axeon Specialty Products  
Address: 400 Grove Road  
West Deptford, NJ 08066  
Technical service: + 1-856-224-7409  
24-Hour Contact: + 1-856-224-7415

**CHEMTREC EMERGENCY Phone:**

U.S. and Canada Only: + 1-800-424-9300  
Outside U.S. and Canada: + 1-703-527-3887

### SECTION 2: HAZARD IDENTIFICATION

**Classification of the substance or mixture**

The mixture has not been assessed and /or tested for its physical, health and environmental hazards and the following classifications apply.

Classification according to the UN GHS Fourth Revised Edition

Classification: Mixture is not classified according to GHS classification

## **SECTION 2: HAZARD IDENTIFICATION Cont'd**

Signal word: Not applicable

Hazard statement: Not applicable

Symbols: Not applicable

### **Precautionary Statements**

Prevention: Wear protective gloves, clothing, eye, and face protection (Section 8).

Response: If EXPOSED OR CONCERNED: Get medical advice/attention.

Storage: At temperatures of 350°F or below is recommended. Store at a distance from fire and ignition sources.

Disposal: Dispose of contents, container in accordance with local, regional, national, international regulations (see Section 13).

### **Hazard Summary**

<b>Also see Hazard Ratings and Sections 10 – 13 of SDS.</b>	
<b>Physical Hazards:</b>	None known
<b>Major Route(s) of Entry</b>	Skin contact, Inhalation
<b>Eye Contact</b>	Hot material can cause burns to the eye. Fumes from this material can cause eye irritation with tearing, redness, or a stinging or burning feeling. Effects may become more serious with repeated or prolonged contact.
<b>Skin Contact</b>	Hot material can cause burns to the skin. May cause skin irritation with redness, an itching or burning feeling, and swelling of the skin. Effects may become more serious with repeated or prolonged contact may cause harmful effects in other parts of the body.
<b>Inhalation</b>	No significant adverse health effects are expected to occur upon short-term exposure to this product at ambient temperatures. Breathing heated mist or vapor can irritate the mucous membranes of the nose, throat, bronchi, and lungs. Hydrogen sulfide (H <sub>2</sub> S) can evolve when this product is stored or handled at elevated temperatures. H <sub>2</sub> S can cause respiratory irritation and hypoxia. H <sub>2</sub> S has an odor of rotten eggs. At higher concentrations, H <sub>2</sub> S odor is not apparent. At concentrations above 500 ppm, H <sub>2</sub> S causes unconsciousness and death by respiratory paralysis. The National Institute for Occupational Safety and Health has determined that atmospheres containing 100 ppm or more of H <sub>2</sub> S are immediately dangerous to life and health.
<b>Ingestion</b>	Contact with hot material may cause thermal burns. If swallowed at ambient temperatures, no significant adverse health effects are anticipated. If swallowed in large quantities, this material can obstruct the intestine.
<b>Signs and Symptoms of Exposure</b>	Skin irritation, respiratory irritation (inhalation of fumes), and eye irritation.  Effects of short-term exposure: Substance is irritating to the eyes and respiratory tract. The heated substance may cause burns.  Effects of long-term or repeated exposure: Fumes of this substance are possibly carcinogenic to humans. This material, or a component of this material, has been shown to cause cancer in laboratory animals. The relevance of this to humans is not clear. See toxicological information (section 11).

## **SECTION 2: HAZARD IDENTIFICATION Cont'd**

<b>Medical Conditions Aggravated by Overexposure</b>	Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, respiratory system, kidneys, central nervous system (CNS), liver, and/or eyes (lens or cornea).
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## **SECTION 3: COMPOSITION**

<b>Component Name(s)</b>	<b>CAS Registry No.</b>	<b>Concentration (%)</b>
Asphalt	8052-42-4	85 - 100
Styrene-Butadiene-Styrene Polymer	9003-55-8	0 - 15
Proprietary amine complex anti-strip additive	Mixture	0 - 1

## **SECTION 4: FIRST AID MEASURES**

<b>Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this SDS.</b>	
<b>Inhalation</b>	Move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If breathing is difficult, 100% humidified oxygen should be administered by a qualified individual. Seek medical attention immediately. Keep the affected individual warm and at rest.
<b>Eye Contact</b>	Check for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain persists.
<b>Skin Contact</b>	If burned by hot material, cool skin by quenching with large amounts of cool water. Seek medical attention if tissue appears damaged or if pain or irritation persists. For contact with product at ambient temperatures, wash exposed skin with mild soap and water, remove contaminated shoes and clothing. Wipe off excess material. Thoroughly clean contaminated clothing before reuse. Clean or discard contaminated leather goods. If material is injected under skin, seek medical attention immediately.
<b>Ingestion</b>	Do not induce vomiting unless directed by a physician. Do not give anything to drink unless directed by a physician. Never give anything by mouth to a person who is not fully conscious. If significant amounts are swallowed or irritation or discomfort occurs, seek medical attention immediately.
<b>Most important symptoms and effects both acute delayed</b>	Substance is irritating to the eyes and respiratory tract. The heated substance may cause burns.  Fumes of this substance are possibly carcinogenic to humans. This material, or a component of this material, has been shown to cause cancer in laboratory animals. The relevance of this to humans is not clear. Repeated exposure to some toxic materials may produce general deterioration of health by accumulation in one or many human organs. Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product. Impaired kidney, liver and blood disorders may be aggravated by exposure to this product. See toxicological information (section 11).
<b>Indication of any immediate medical attention and special treatment needed:</b>	None known

## **SECTION 4: FIRST AID MEASURES Cont'd**

<p><b>Notes to Physician</b></p>	<p>SKIN: Hot material may cause skin burns. Immerse skin covered with hot material in cool water to limit tissue damage and prevent spread of liquid product. Consider leaving cooled material on skin unless contraindicated by contamination or potential for tattooing. If removal is necessary, mineral oil may be of assistance in minimizing skin loss when removing cool, hardened asphalt.</p> <p>EYES: Hot material may cause burns to the eyes. Early ophthalmologic evaluation is recommended.</p> <p>INGESTION: Check for possible bowel obstruction with ingestion of large quantities of material.</p>
<p><b>Emergency Procedures</b></p>	<p>Because hydrogen sulfide inhalation can be fatal, rescuers must wear positive pressure full face piece, and/or self-contained or supplied air NIOSH approved respirators before attempting the rescue.</p>

## **SECTION 5: FIRE FIGHTING MEASURES**

<p><b>Clear Fire Area of all Non-emergency Personnel</b></p>	
<p><b>Specific hazards arising from the chemical:</b></p>	<p>Combustible material, NFPA Class-IIIB.</p>
<p><b>Extinguishing Media</b> Suitable extinguishing media:  Unsuitable extinguishing media:</p>	<p>Use dry chemical powder, carbon dioxide, foam or water fog.</p> <p>Water</p>
<p><b>Hazardous Combustion</b></p>	<p>Carbon dioxide, carbon monoxide, smoke fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures.</p>
<p><b>Special Protective Equipment for Fire Fighters</b></p>	<p>Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus (SCBA) to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.</p>
<p><b>Special Firefighting Procedures:</b></p>	<p>Fight fire from a safe distance in a protected location. Cool surface with water fog. Molten material can form flaming droplets if ignited. Water or foam can cause frothing. Use of water on product above 100°C (212°F) can cause product to expand with explosive force. Do not allow liquid runoff to enter sewers or public waters.</p>
<p><b>Special Remarks on Fire Hazards</b></p>	<p>Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines.</p>

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this SDS.**

## **SECTION 6: ACCIDENTAL RELEASE MEASURES Cont'd**

<b>Personal Precautions</b>	Remove all potential ignition sources. Administer appropriate first aid as needed. Verify that responders are properly HAZWOPER-trained and wearing appropriate protective equipment during cleanup operations. Isolate the area of the spill and restrict access.  Small spills: normal working coveralls are usually adequate.  Large spills: full body suit of chemically resistant and thermal resistant material should be used.
<b>Environmental</b>	Do not allow free liquids to enter drains, sewers, ground water, drainage ditches or surface waters. This material is heavier than water. Releases to surface waters will sink.
<b>Clean Up Methods</b>	Small Spills: Remove released material with shovels and place into containers for disposal.  Large Spills: Evacuate area immediately. Evaluate potential exposure to response personnel. Respiratory protection may be required. Use protective clothing. Dike far ahead of a liquid spill to ensure complete collection.
<b>Additional Advice</b>	When presence of dangerous amounts of H <sub>2</sub> S around the spilled product is suspected or proved, additional or special action may be warranted, including access restrictions, use of special protection equipment, procedures and personnel training.  Report releases in accordance with local, state and federal requirements. Some releases must be reported to the National Response Center (800-424-8802).

## **SECTION 7: HANDLING AND STORAGE**

<b>Handling</b>	Ground/bond containers, tanks and transfer/receiving equipment. Use normal precautions when handling hot, molten liquid solutions. Do not breathe fumes or vapor from heated material. Do not allow hot material to contact skin. Avoid contact of hot asphalt with water, risk of splashing of hot material. Wash thoroughly after handling.
<b>Storage</b>	Storage at temperatures of 350°F or below is recommended. Store distant from fire and ignition sources.
<b>Product Transfer</b>	Ground/bond transfer/receiving equipment. Keep in the original container or in a suitable container for this kind of product. Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.
<b>Container Advice</b>	Store in cone roof storage tanks to minimize the formation of pyrophoric sulfides and carbonaceous deposits on the tank roof and appurtenant structures. Container linings: use mild steel, stainless steel. Unsuitable materials: most synthetic materials are unsuitable for containers or container linings, due to low heat resistance.

## **SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

<b>Engineering Controls</b>	Engineering controls are normally required when handling hot materials. Use process enclosures, local exhaust ventilation, or other controls to maintain airborne levels below recommended exposure limits (see below). Engineering controls should meet applicable requirements of the National Electrical Code (NEC) Standards. Ensure that emergency eye wash station and safety showers are located near the work-station.
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### **Occupational Exposure Guidelines**

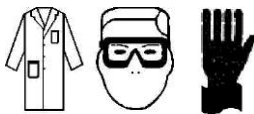
<b>Substance</b>	<b>Applicable Workplace Exposure Levels</b>
Asphalt	
ACGIH TLV	0.5 mg/m <sup>3</sup> (fume, inhalable fraction, as benzene soluble aerosol)
NIOSH Ceiling	5 mg/m <sup>3</sup> Ceiling (fume, 15 min)
Australia OES TWAs	5 mg/m <sup>3</sup> TWA (fume)
China OEL STELs	12.5 mg/m <sup>3</sup> STEL (fume, as Benzene soluble matter)

## **SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION Cont'd**

<b>Substance</b>	<b>Applicable Workplace Exposure Levels</b>
China OEL TWAs	5 mg/m <sup>3</sup> TWA (fume, as Benzene soluble matter)
Hong Kong OEL TWAs	0.5 mg/m <sup>3</sup> TWA (fume, as Benzene soluble aerosol)
New Zealand OEL TWAs	5 mg/m <sup>3</sup> TWA (fume)
Alberta OEL TWAs	5 mg/m <sup>3</sup> TWA (Petroleum, Bitumen, fume)
British Columbia OEL TWAs	0.5 mg/m <sup>3</sup> TWA (inhalable fume, as Benzene-soluble aerosol)
New Brunswick, Northwest Territories, Nunavut, and Yukon, OEL TWAs	5 mg/m <sup>3</sup> TWA (petroleum fumes)
Manitoba, Newfoundland & Labrador, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan, OEL TWAs	0.5 mg/m <sup>3</sup> TWA (fume, inhalable fraction, as Benzene soluble aerosol)
Northwest Territories, Nunavut, and Yukon OEL STELs	10 mg/m <sup>3</sup> STEL (Petroleum fumes)
Quebec OEL TWAEVs	5 mg/m <sup>3</sup> TWAEV (fume)
Saskatchewan OEL STELs	1.5 mg/m <sup>3</sup> STEL (fumes, inhalable fraction, as Benzene soluble aerosol)
Belgium, Estonia, Poland, Romania, United Kingdom OEL TWAs	5 mg/m <sup>3</sup> TWA (fume)
Bulgaria OEL STELs	10 mg/m <sup>3</sup> TWA (as Benzene)
Bulgaria OEL TWAs	5 mg/m <sup>3</sup> TWA (as Benzene)
Croatia, Ireland OEL STELs	10 mg/m <sup>3</sup> STEL
Croatia OEL TWAs	5 mg/m <sup>3</sup> TWA
Denmark OEL TWAs	1 mg/m <sup>3</sup> TWA (Cyclohexane fraction of total dust, fume)
Greece OEL TWAs	5 mg/m <sup>3</sup> TWA
Ireland OEL TWAs	0.5 mg/m <sup>3</sup> TWA (petroleum fumes)
Poland, United Kingdom OEL STELs	10 mg/m <sup>3</sup> STEL (fume)
Portugal OEL TWAs	0.5 mg/m <sup>3</sup> TWA (fumes, inhalable fraction, as Benzene soluble aerosol)
Slovenia OEL TWAs	10 ppm TWA (aerosol and vapor from warm processing)
Spain OEL TWAs	10 mg/m <sup>3</sup> STEL (fumes, as Benzene soluble aerosol)
Chile OEL TWAs	4 mg/m <sup>3</sup> TWA LPP (fume)

<b>Additional Information</b>	Asphalt handled at elevated temperature may cause thermal burns by contact with molten product. Heated asphalt will give off fumes. Although these are unlikely to present a significant health hazard, to avoid respiratory tract irritation inhalation exposure should be kept to a minimum, by observing good work practice and ensuring good ventilation around work areas. Hydrogen sulphide may accumulate in the head space of storage tanks containing asphalt and can reach potentially hazardous concentrations.
<b>Exposure Controls</b>	Personal protective equipment should be selected based upon the conditions under which this material is being used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations.
<b>Appropriate Measures</b>	Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents, or harsh abrasive skin cleaners.

## **SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION Cont'd**

<b>Respiratory Protection</b>	Contaminant air concentrations determine the level of respiratory protection required. Use only NIOSH or other approved respiratory equipment within the limits of the protection factors for that equipment. Use supplied air respirators when H <sub>2</sub> S concentrations are expected to exceed applicable workplace exposure levels. Do not use air purifying respiratory equipment when considering elevated H <sub>2</sub> S concentrations. Respiratory equipment must be selected on the basis of the maximum expected air concentration.
<b>Hand Protection</b>	When handling product at elevated temperatures, use log-cuffed leather or heat-resistant gloves. When product is at ambient temperatures, use gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected.
<b>Eye</b>	Use full-face shield and chemical safety goggles if handling heated material. With product at ambient temperatures, safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Keep a suitable eye wash station immediately available to the work area.
<b>Skin</b>	Prevent skin contact when handling heated material. Use insulated, heat-resistant clothing such as chemical resistant apron or slicker suit. Use a full-body heat-resistant or internally cooled suit when work conditions dictate.
<b>Monitoring Methods</b>	Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended air monitoring methods are given below or contact supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods, <a href="http://www.cdc.gov/niosh/nmam/nmammenu.html">http://www.cdc.gov/niosh/nmam/nmammenu.html</a> . Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods, <a href="http://www.osha-slc.gov/dts/sltc/methods/toc.html">http://www.osha-slc.gov/dts/sltc/methods/toc.html</a> .
<b>Recommended Personal Protection</b>	
	
	Splash goggles. Full suit. Gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Solid	<b>Specific Gravity</b>	0.95 – 1.1
<b>Appearance</b>	Brown to black	<b>Density, kg/L @15°C</b>	Not applicable
<b>Odor</b>	Characteristic, sour, tar-like	<b>Water Solubility</b>	In soluble in cold water
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not applicable
<b>Melting Point/Freezing Point</b>	30 - 60°C	<b>Flammability</b>	Not available
<b>Vapor Pressure</b>	Negligible	<b>Flammability limit-lower%</b>	Not available
<b>Vapor Density (Air = 1)</b>	> 1 (Air = 1)	<b>Flammability limit-upper%</b>	Not available
<b>Boiling Point</b>	> 450°C	<b>Evaporation Rate</b>	Not available
<b>Flash Point, PMCC</b>	> 180°C	<b>Percent Volatile</b>	Not available
<b>Auto-ignition temperature</b>	> 400°C	<b>Decomposition Temperature</b>	Not applicable
<b>Viscosity (poise @ 25°C)</b>	Not available	<b>Partition Coefficient</b>	> 10

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES Cont'd**

### **Hazardous Material Information System**

Health hazard: 2  
Flammability: 1  
Physical hazards: 0

Customer is responsible for determining the PPE for this material.

### **National Fire Protection Association (USA)**

Health hazard: 1  
Fire: 1  
Reactivity: 0

Customer is responsible for determining the PPE for this material.

## **SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	Material is not expected to polymerize.
<b>Stability</b>	Stable under all ordinary circumstances at ambient temperatures, and if released into the environment.
<b>Conditions to Avoid</b>	Keep away from extreme heat, strong acids and strong oxidizing conditions. Excessive heating above the maximum recommended handling and storage temperature may cause degradation of the substance and evolution of irritant vapors and fumes.
<b>Materials to Avoid</b>	Strong oxidizers
<b>Hazardous Decomposition</b>	No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this SDS.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **General information on likely routes of exposure:**

This product may be encountered via dermal contact, eye contact, inhalation, and ingestion.

<b>Asphalts</b>	For other health-related information, refer to the Hazards Identification in Section 2 of this SDS.
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### **Acute Toxicity:**

<b>Product/Ingredient name</b>	<b>Result</b>	<b>Species</b>	<b>Dose</b>	<b>Exposure</b>
Asphalt	LD <sub>50</sub>	Rat	> 5000 mg/kg	Oral
	LD <sub>50</sub>	Rabbit	> 2000 mg/kg	Dermal
	4h LC <sub>50</sub>	Rat	> 94.4 mg/m <sup>3</sup> (0.0944 mg/L)	Inhalation
	4 h LC <sub>50</sub>	Rat	> 182 mg/m <sup>3</sup> (0.182 mg/L)	Inhalation
Styrene-Butadiene-Styrene Polymer	No data	No data	No data	No data
Proprietary amine complex anti-strip additive	No data	No data	No data	No data



## **SECTION 11: TOXICOLOGICAL INFORMATION Cont'd**

<b>Skin Corrosion/Irritation</b>	Asphalts are not considered to be irritating to the skin in rabbits.
<b>Serious Eye Damage/Irritation</b>	Asphalts are not considered to be irritating to the eye in rabbits.
<b>Respiratory or skin sensitization</b>	Asphalts did not induce sensitization in the Buehler Guinea Pig model. No data were identified related to respiratory sensitization.
<b>Mutagenicity</b>	Asphalts are not regarded as mutagenic. Asphalts are negative <i>in vitro</i> with and without metabolic activation (Ames test); negative without metabolic activation (Ames test, Mouse lymphoma cell); weakly positive with metabolic activation (Ames test, Mouse lymphoma cell); and negative <i>in vivo</i> (Chromosome aberration).  Asphalt fumes condensates were found to be mutagenic <i>in vitro</i> (with and without metabolic activation) with the severity of the effects correlated with the temperature under which fumes are generated (Ames test, and Micronucleus mammalian cell) negative results were reported <i>in vivo</i> (Chromosome aberration assay), and positive results were reported <i>in vivo</i> (Micronucleus genotoxic damage – bone marrow, and DNA adduct).
<b>Carcinogenicity</b>	Asphalts are not considered to be carcinogenic; no evidence of carcinogenic potential was reported in animal and/or epidemiological studies.  Styrene-Butadiene-Styrene Polymer, present in this product at $\leq 15\%$ ; is not considered to be carcinogenic. No evidence of carcinogenicity was reported in epidemiological cohort studies in workers of styrene-butadiene rubber plants.
<b>Reproductive Toxicity</b>	Asphalts are not considered to be a reproductive hazard; no evidence of reproductive toxicity was reported in rats exposed orally in 2-generation study, a NOAEL of 1000 mg/kg was reported.
<b>STOT – Single Exposure</b>	Acute exposure to asphalts reported no evidence of systemic target organ hazards for all routes of exposure (oral, dermal, and inhalation).
<b>STOT – Repeated Exposure</b>	Repeat and/or chronic exposure to asphalts and asphalt fumes reported no evidence of systemic target organ hazards by multiple routes of exposure (dermal and inhalation).  Styrene-Butadiene-Styrene Polymer, present in this product at $\leq 15\%$ ; reported no evidence of systemic target organ hazards after repeat and/or chronic exposure. No evidence of target organ toxicity was reported in 26 week study in rats exposed to styrene-butadiene-styrene polymer via inhalation.
<b>Aspiration Hazard</b>	Not applicable – product is a solid.
<b>Information on the Likely Routes of Exposures:</b>	Skin contact, Inhalation

## **SECTION 12: ECOLOGICAL INFORMATION**

<b>Asphalts</b>	Constituent hydrocarbons making up asphalts are of such high molecular weight and low solubility that such substances would not be expected to cause acute or chronic toxicity to aquatic organisms.
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## **SECTION 12: ECOLOGICAL INFORMATION Cont'd**

### **Aquatic Toxicity:**

<b>Product/Ingredient name</b>	<b>Result</b>	<b>Species</b>	<b>Dose</b>	<b>Exposure</b>
Asphalt	LL <sub>0</sub>	Fish	1000 mg/L	96 h
	LL <sub>0</sub>	Fish	1000 mg/L	7 d
	EL <sub>0</sub>	Invertebrate	1000 mg/L	48 h
	NOEL	Invertebrate	1000 mg/L	21 d
	NOEL	Algae	1000 mg/L	96 h
Styrene-Butadiene-Styrene Polymer	No data	No data	No data	No data
Proprietary amine complex anti-strip additive	No data	No data	No data	No data

<b>Mobility</b>	Asphalts contain some of the heaviest and least volatile fractions of petroleum. At ambient temperatures they exist as a semi-solid to solid substances with negligible vapor pressure and negligible water solubility. These physiochemical characteristics of these substances limit their capacity to distribute to different environmental media.
<b>Persistent and degradability</b>	Asphalts biodegradation is expected to be minimal.
<b>Bioaccumulative potential</b>	Asphalts are not expected to bioaccumulate.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

<b>Waste Disposal</b>	Where feasible, recycling of used product is recommended.  Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulation (see 40 CFR 206 through 40 CFR 271). State and/or local regulations may be more restrictive.
<b>Material Disposal</b>	Surplus (unused) or off-spec product can be recovered or re-conditioned (according to specific characteristics and composition), or can be disposed of as waste.

## **SECTION 14: TRANSPORT INFORMATION**

**The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.**

UN Number: UN3257  
Proper Shipping Name: Elevated temperature liquid, n.o.s., (Asphalt)  
Class/Division: Class 9  
Packing Group: III  
Environmental Hazards: N/A  
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not relevant for ground transportation.  
Special Precautions: Emergency Response Guide - 128

## **SECTION 15: REGULATORY INFORMATION**

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

### **USA Federal Regulations**

29 CFR 1910.1200 Hazard Communication Standard (HCS):

Hazardous

TSCA – U.S. Inventory (TSCA 8b)

Compliant

TSCA – U.S. Inventory (TSCA 12b)

Not Regulated

<b>US Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	
<b>SARA Title III Section 302 – Extremely Hazardous Spill: Reportable Quantity</b>	
Hydrogen Sulfide (CAS 7783-06-4)	100 pounds
<b>SARA Title III Section 302 – Extremely Hazardous Substance: Threshold Planning Qty.</b>	
Hydrogen Sulfide (CAS 7783-06-4)	500 pounds
<b>SARA Title III Section 313 – Toxic Chemical: De minimis concentration</b>	
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	0.1% N590 Substance is not eligible for the de minimis exemption except for the purposes of supplier notification requirements.
<b>SARA Title III Section 313 – Toxic Chemical: Reportable Threshold</b>	
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	100 pounds N590
<b>SARA Title III Section 313 – Toxic Chemical: Listed Substance</b>	
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2) N590 Listed	
<b>CERCLA (Superfund) reportable quantity (LBS) (40 CFR 302.4)</b>	
Hydrogen sulfide	100
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
Hazard Categories	
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No
<b>Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)</b>	No
<b>Section 311/312 (40 CFR 370)</b>	No
<b>US States Right to Know</b>	
Asphalt	Massachusetts, New Jersey, Pennsylvania

### **Australia Regulation**

<b>Australia High Volume Industrial Chemical List</b>	
Asphalt	Present
<b>Australia Inventory of Chemical Substances</b>	
Asphalt	Present

## SECTION 15: REGULATORY INFORMATION Cont'd

Styrene	Present
Poly phosphoric acids	Present

### Canadian Regulations

<b>Canada CEPA (DSL):</b>
All components are listed or exempt

### New Zealand Regulations

<b>New Zealand Inventory of Chemicals (NZIoC)</b>	
Asphalt	Present
Poly phosphoric acids	Present

## SECTION 16: OTHER INFORMATION

<b>Label Requirements</b>	<p>Wear protective gloves, clothing, eye, and face protection (see Section 8).                  If EXPOSED OR CONCERNED: Get medical advice/attention.                  Store at temperatures of 350°F or below is recommended. Store at a distance from fire and ignition sources.                  Dispose of contents, container in accordance with local, regional, national, international regulations (see Section 13).</p>			
	<table> <tr> <td><b>Hazardous Material Information System</b></td> <td>                     Health hazard: 2                      Flammability: 1                      Physical hazards: 0                 </td> </tr> <tr> <td><b>National Fire Protection Association (USA)</b></td> <td>                     Customer is responsible for determining the PPE for this material.                      Health hazard: 1                      Fire: 1                      Reactivity: 0                       Customer is responsible for determining the PPE for this material.                 </td> </tr> </table>	<b>Hazardous Material Information System</b>	Health hazard: 2 Flammability: 1 Physical hazards: 0	<b>National Fire Protection Association (USA)</b>
<b>Hazardous Material Information System</b>	Health hazard: 2 Flammability: 1 Physical hazards: 0			
<b>National Fire Protection Association (USA)</b>	Customer is responsible for determining the PPE for this material. Health hazard: 1 Fire: 1 Reactivity: 0  Customer is responsible for determining the PPE for this material.			

### REVISION INFORMATION

Revision Date                      10-02-2014

### ABBREVIATIONS

<b>ACGIH:</b> American Conference of Governmental Industrial Hygienists
<b>CNS:</b> Central Nervous System
<b>DSL:</b> Domestic Substance List
<b>EC<sub>50</sub>:</b> Effective Concentration, 50%
<b>GHS:</b> Global Harmonized System
<b>IARC:</b> International Agency for Research on Cancer
<b>IATA:</b> International Air Transport Association

## **SECTION 16: OTHER INFORMATION Cont'd**

<b>IMDG:</b> International Maritime Dangerous Goods
<b>LC<sub>50</sub>:</b> Lethal Concentration, 50%
<b>LD<sub>50</sub>:</b> Lethal Dose, 50%
<b>NEC:</b> National Electrical Code
<b>NFPA:</b> National Fire Protection Association
<b>NIOSH:</b> National Institute of Occupational Safety and Health
<b>NOAEL:</b> No Observable Adverse Effect Level
<b>OEL:</b> Occupational Exposure Limits
<b>OSHA:</b> Occupational Safety and Health Administration
<b>SCBA:</b> Self-Contained Breathing Apparatus
<b>STEL:</b> Short-Term Exposure Limits
<b>TLV:</b> Threshold Limit Value
<b>TWA:</b> Time Weight Average
<b>UN:</b> United Nation

### **DISCLAIMER OF LIABILITY**

#### **ASPHALT CEMENT, StellerFlex**

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