

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION

#### 1.1 PRODUCT IDENTIFIER

**Product Name:** GemSeal®GemPatch Liquid Blend

#### 1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTION ON USE

**Use:** Asphalt pavement repair

#### 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

**Name/Address:** GemSeal Pavement Products  
3700 Arco Corporate Drive, Suite 425  
Charlotte, NC 28273

**Telephone Number:** (866) 264-8273      Tech Service 8:00 to 5:00 Eastern, Mon – Fri.

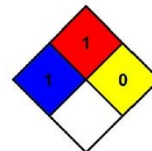
#### 1.4 EMERGENCY TELEPHONE NUMBER

**Emergency Telephone Number:** CHEMTREC (800) 424-9300  
INTERNATIONAL + 01-703-527-3887  
**Date of Preparation:** July 7, 2016      **Version #:** 1.0

### Section 2: HAZARD(S) IDENTIFICATION

#### 2.1 CLASSIFICATION OF THE CHEMICAL

NFPA health hazard (blue): 1 – Exposure could cause irritation but only minor residual injury even if no treatment given.  
NFPA fire hazard (red): 1 – Must be preheated before ignition can occur.  
NFPA reactivity (yellow): 0 – Normally stable, even under fire exposure conditions, and are not reactive with water.



#### 2.2 LABEL ELEMENTS

##### Hazard Pictogram



**Signal Word:** Danger

**Hazard statements:** Contact may cause eye irritation. Contact with skin may cause mild to moderate skin irritation. Skin application of asphalt fume condensate fractions caused skin tumors in laboratory mice. Animal studies in which high concentrations of asphaltic fumes were breathed for extended periods of time did not cause carcinogenic effects. The International Agency for Research on Cancer (IARC) has concluded: there is inadequate evidence that bitumen (asphalt) alone is carcinogenic in humans. May cause damage to organs or organ systems through prolonged or repeated exposure. Potentially toxic to aquatic life.

## SAFETY DATA SHEET

**Precautionary Statements:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned, get medical advice/attention. If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. Store locked up. Dispose of contents and container in accordance with all local, regional, national, and international regulations.

### 2.3 ADDITIONAL INFORMATION

No additional information available.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Wt %	GHS-US classification
Asphalt	8052-42-4	65 – 90	Carc. 2
Diesel No.2	68476-34-6	0 – 35	None known
Mixture	Proprietary	0 - 5	None known

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200

### Section 4: FIRST – AID MEASURES

**General:** In all cases of doubt, or when symptoms persist, seek medical attention.

**Eye:** If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin:** If irritation or redness develops, wash the area with hot soapy water. Use of a waterless hand cleaner will help to remove the asphalt.

**Inhalation:** If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Obtain medical attention.

**Notes to Physician:** Adhered product is not harmful to the skin, and in fact, provides a sterile cover over the affected area. The asphalt will detach itself within a few days. If it is necessary to remove asphalt, only medically approved solvents or warm paraffin should be used to prevent further skin damage.

This material may contain or liberate hydrogen sulfide. In high doses hydrogen sulfide may produce pulmonary edema and respiratory depression, or paralysis. The first priority in treatment should be the establishment of adequate ventilation and the administration of 100% oxygen. If unresponsive to supportive care, nitrites (amyl nitrite by inhalation or sodium nitrite IV) may be an effective antidote, if delivered within the first few minutes of exposure.

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## SAFETY DATA SHEET

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### Section 5: FIRE-FIGHTING MEASURES

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**Unusual Fire & Explosion Hazards:** This material may burn, but will not ignite readily. Vapors are heavier than air and can accumulate in low areas. Hot material may ignite flammable mixtures on contact. If water is applied to heated material, it can cause violent foaming and boil over.

**Extinguishing Media:** Dry chemical, carbon dioxide, foam, or water spray recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Water fog may be used on flat surfaces such as roads. Do not use water on asphaltic fire in tank or containers since it may cause violent eruption and spreading of burning asphalt.

**Products of Combustion:** Carbon monoxide, carbon dioxide, and potentially hydrogen sulfide gas.

**Fire Fighting Instructions:** For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Water or foam can cause frothing. Avoid spreading burning liquid with water used for cooling purposes.

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### Section 6: ACCIDENTAL RELEASE MEASURES

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This material may burn, but will not ignite readily. Keep all sources of ignition away from spill / release.

Stay upwind of spill / release. Do not breathe fumes. Do not operate electrical equipment. Notify persons downwind of the spill / release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill / release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal.

Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notifies the National Response Center (phone 800-424-8802).

# SAFETY DATA SHEET

## Section 7: HANDLING AND STORAGE

**Handling:** Avoid contact with skin, eyes, and clothing. Avoid inhalation and ingestion. Avoid dust formation. Provide adequate ventilation. Use spark-proof tools and explosion-proof equipment. Keep away from sources of ignition – no smoking. Prevent build-up of electrostatic charge.

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits.

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

“Empty” containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

**Storage:** Keep containers tightly closed in a cool, dry, and well-ventilated area. Open containers must be carefully resealed and kept upright to prevent leakage. If product is hot, do not allow contact with water due to danger of boil-over. Store segregated from incompatible chemicals.

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 CONTROL PARAMETERS

Asphalt (8052-42-4)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>

Diesel No. 2		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>

### 8.2 EXPOSURE CONTROLS

**Engineering Controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

**Personal Protective Equipment (PPE):**

**Respiratory:** If exposure concentration is unknown or if conditions immediately dangerous to life or health (IDLH) exist, use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode.

**Hand Protection:** Handle with gloves. Nitrile gloves are recommended.

**Eye Protection:** ANSI approved, tight-fitting glasses / goggles. Face shield recommended.

**Skin and Body Protection:** Flame-resistant material preferably of anti-static material, long pants, closed-toe shoes.

**Hygiene Measures:** Avoid contact with skin, eyes, and clothing. Wash hands before breaks and after handling.

## SAFETY DATA SHEET

**Other Protective Equipment:** A source of clean water should be available in the work area for flushing eyes and skin.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Brown to black in color
<b>Physical form:</b>	Liquid
<b>Odor:</b>	Asphalt
<b>Odor threshold:</b>	No data available
<b>pH:</b>	Not applicable
<b>Vapor pressure (mm Hg):</b>	No data available
<b>Vapor density (air = 1):</b>	No data available
<b>Boiling point:</b>	No data available
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	No data available
<b>Specific gravity:</b>	Approximately 0.99
<b>Bulk density:</b>	8.26 lb./gal
<b>Evaporation rate (nBuAc = 1):</b>	<1
<b>Flash point (TOC):</b>	>300°F (149°C)
<b>Auto-ignition temperature:</b>	No data available

### Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** Avoid all possible sources of ignition. Toxic fumes can be released on heating. Do not allow contact of molten product with water or liquids as violent eruptions, splatter, or hot material or ignition of flammable materials may result.

**Materials to Avoid:** Avoid contact with fluorine, nitric acid, strong oxidizing agents.

**Hazardous Decomposition Products:** Combustion can yield carbon, nitrogen, and sulfur oxides, hydrogen sulfide.

**Hazardous Polymerization:** Will not occur.

### Section 11: TOXICOLOGY INFORMATION

**Bitumen – CAS No 8052-42-4**

**Chronic Data:**

*Carcinogenicity:* Skin application of asphalt fume condensate fractions caused skin tumors in laboratory mice. Animal studies in which high concentrations of asphaltic fumes were breathed for extended periods of time did not cause carcinogenic effects. Trace amounts of polycyclic aromatic hydrocarbons (PAHs) may be present in asphalts and can be generated upon excessive heating. Some PAHs have been identified as causing carcinogenic and reproductive effects.

The International Agency for Research on Cancer (IARC) has concluded: there is inadequate evidence that bitumen (asphalt) alone are carcinogenic in humans; that there is limited evidence

## SAFETY DATA SHEET

for carcinogenicity of undiluted, steam refined bitumen, and for cracking residue bitumen in laboratory animals; and that there is inadequate evidence for the carcinogenicity of extracts of undiluted air-refined bitumen in laboratory animals.

### **Acute Data:**

Dermal LD50: No information available  
LC50: No information available  
Oral LD50: No information available

### **Hydrogen Sulfide – CAS No 7783-06-4**

#### **Acute Data:**

Dermal LD50: Not applicable  
LC50: 600 ppm, 30 min (Human)  
Oral LD50: Not applicable

### **Diesel No. 2 – CAS No 68476-34-6**

Acute oral toxicity: LD50 (rat) > 5,000 mg/kg  
Acute dermal toxicity: LD50 (rabbit) > 2,000 mg/kg

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## Section 12: ECOLOGICAL INFORMATION

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### **12.1 ECOTOXICITY**

**Acute/Chronic Toxicity:** May cause long-term adverse effects in the aquatic environment

**12.2 PERSISTENCE AND DEGRADABILITY** Not available

**12.3 BIOACCUMULATIVE POTENTIAL** Not available

**12.4 MOBILITY IN SOIL** Not available

**12.5 OTHER ADVERSE EFFECTS** No additional information available

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## Section 13: DISPOSAL CONSIDERATIONS

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### **13.1 WASTE TREATMENT METHODS**

**Disposal Method:** This material must be disposed of in accordance with all local, state, provisional, and federal regulations.

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## Section 14: TRANSPORT INFORMATION

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### **U.S. Department of Transportation (DOT) Status:**

This material being managed in ambient temperatures (not heated) is not regulated as a DOT “hazardous material”.

**UN Number:** Not applicable

**UN proper shipping name:** Not applicable

**Special transport precautions:** Do not handle until all safety precautions have been read and understood.

**Other Information:** No other supplementary information available



# SAFETY DATA SHEET

## Section 15: REGULATORY INFORMATION

### U.S.A. REGULATIONS

#### EPA SARA 311/312 (Title III Hazard Categories)

Acute Health:	No
Chronic Health:	Yes
Fire Hazard:	No
Pressure Hazard:	No
Reactive Hazard:	No

## Section 16: OTHER INFORMATION

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**Version:** 1.0

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