# GemSeal® Guardian AE / GemSeal® Guardian PM /
# GemSeal® Guardian NQ

## Safety Data Sheet


**Date of issue:** 02/01/2016  
**Revision date:** 02/01/2016  
**Version:** 1.1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>:</th>
<th>Mixture</th>
</tr>
</thead>
</table>
| Product name & code | : | GemSeal® Guardian AE  
Product Code: 60310003 – 55gal / 60310031 – 1gal  
GemSeal® Guardian PM  
Product Code: 60310065 – 55gal / 60310042 – 1gal  
GemSeal® Guardian NQ  
Product Code: 60310071 – 1gal |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

- **Use of the substance/mixture**: Various.

### 1.3. Details of the supplier of the safety data sheet

GemSeal Pavement Products  
3700 Arco Corporate Drive, Suite 425  
Charlotte, NC 28273 - USA  
T 866-264-8273 Tech Service: Monday - Friday; 8:00am - 5:00pm EST

### 1.4. Emergency telephone number

| Emergency number | : | CHEMTREC (800) 424-9300 |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

- **GHS-US classification**  
  - Serious Eye Irritation 2A  
  - Carcinogenicity 1A  
  - Specific Target Organ Toxicity After Repeated Exposure 1

### 2.2. Label elements

- **GHS-US labelling**  
  - Hazard pictograms (GHS-US): ![GHS07](image) ![GHS08](image)
  - Signal word (GHS-US): Danger
  - Hazard statements (GHS-US): Causes serious eye irritation. May cause cancer. Causes damage to lungs through prolonged or repeated exposure
  - Precautionary statements (GHS-US): Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/lume/gas/mist/vapours/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. Other hazards

No additional information available.

### 2.4. Unknown acute toxicity (GHS-US)

14% of the mixture consists of ingredient(s) of unknown acute toxicity.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable.
According to the Safety Data Sheet for Guardian NQ GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian PM, the methods for cleaning up and firefighting are as follows:

**Methods for cleaning up**

For containment: Scoop up material and place in a disposal container. No additional information available.

**Protection during firefighting**

- Personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
- Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
- Use appropriate Personal Protective Equipment (PPE).

**SECTION 4: First aid measures**

### 4.1. Description of first aid measures

- **First-aid measures after inhalation**
  - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

- **First-aid measures after skin contact**
  - If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.

- **First-aid measures after eye contact**
  - In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

- **First-aid measures after ingestion**
  - If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

**SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

- Suitable extinguishing media: Treat for surrounding material.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard: Products of combustion may include, and are not limited to: oxides of carbon.

**SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Protective equipment: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

#### 6.1.2. For emergency responders

- No additional information available.

### 6.2. Methods and material for containment and cleaning up

#### For containment

- Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

#### Methods for cleaning up

- Scoop up material and place in a disposal container.
6.3. Reference to other sections
No additional information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid contact with skin and eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands before eating, drinking, or smoking. Launder contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep out of the reach of children. Keep container tightly closed.

7.3. Specific end use(s)
Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>USA ACGIH</th>
<th>USA OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (8052-42-4)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>0.025 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>20 mppcf</td>
</tr>
<tr>
<td>Mica (12001-26-2)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>20 mppcf</td>
</tr>
<tr>
<td>Titanium dioxide (13463-67-7)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>Carbon black (1333-86-4)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Hydrogen chloride (7647-01-0)</td>
<td>ACGIH Ceiling (ppm)</td>
<td>2 ppm</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (Ceiling) (mg/m³)</td>
<td>7 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (Ceiling) (ppm)</td>
<td>5 ppm</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection: Wear suitable gloves.
Eye protection: Safety glasses or goggles are recommended when using product.
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls: Maintain levels below Community environmental protection thresholds.
Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

VOC content: < 50 g/L

SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reaction known under conditions of normal use.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid
Incompatible materials.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50 oral rat</th>
<th>LD50 dermal rabbit</th>
<th>LC50 inhalation rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian NQ</td>
<td>3497 mg/kg</td>
<td>4928 mg/kg</td>
<td>&gt;20 mg/l/4h</td>
</tr>
<tr>
<td>Asphalt (8052-42-4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Quartz (14808-60-7)
LD50 oral rat 500 mg/kg

Titanium dioxide (13463-67-7)
LD50 oral rat > 10000 mg/kg

Hydrogen chloride (7647-01-0)
LD50 oral rat 700 mg/kg
LD50 dermal rabbit > 5010 mg/kg
LC50 inhalation rat (ppm) 3124 ppm/1h

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: May cause cancer.

Asphalt (8052-42-4)
IARC group 2B
National Toxicity Program (NTP) Status 5

Quartz (14808-60-7)
IARC group 1

Titanium dioxide (13463-67-7)
IARC group 2B

Carbon black (1333-86-4)
IARC group 2B

Hydrogen chloride (7647-01-0)
IARC group 3

Reproductive toxicity: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure): Causes damage to lungs through prolonged or repeated exposure.
Aspiration hazard: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability
GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian NQ
Persistence and degradability: Not established.

12.3. Bioaccumulative potential
GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian NQ
Bioaccumulative potential: Not established.

12.4. Mobility in soil
No additional information available.

12.5. Other adverse effects
No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste disposal recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.
SECTION 14: Transport information

In accordance with DOT:

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Additional information
Other information: No supplementary information available.
Special transport precautions: Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

Asphalt (8052-42-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aluminum silicate (1327-36-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Feldspar (68476-25-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Titanium dioxide (13463-67-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Carbon black (1333-86-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Hydrogen chloride (7647-01-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 302 (Specific toxic chemical listings)
Listed on SARA Section 313 (Specific toxic chemical listings)
SARA Section 302 Threshold Planning Quantity (TPQ) 500 (gas)
SARA Section 313 - Emission Reporting 1.0 %

15.2. US State regulations

GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian NQ
State or local regulations
This product contains Crystalline Silica, Quartz and may also contain other chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC International Agency for Research on Cancer.

1 - Carcinogenic to humans;
2A - Probably carcinogenic to humans;
2B - Possibly carcinogenic to humans;
3 - Not classifiable;
4 - Probably not carcinogenic to humans.

NTP National Toxicology Program.

1 - Evidence of Carcinogenicity;
2 - Known Human Carcinogens;
3 - Reasonably anticipated to be Human Carcinogen;
4 - Substances delisted from report on Carcinogens;
5 - Twelfth Report - Items under consideration.
SECTION 16: Other information

Date of issue: 02/01/2016
Revision date: 02/01/2016

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

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.