



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

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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

Product form : Mixture
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

GHS08

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/fume/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.

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

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|-------------------|---------------------|---------|--|
| Asphalt | (CAS No) 8052-42-4 | 20 - 40 | Carc. 2 |
| Quartz | (CAS No) 14808-60-7 | 5 - 10 | Acute Tox. 4 (Oral) Carc. 1A STOT RE 1 |
| Mica | (CAS No) 12001-26-2 | 5 - 10 | Not classified |
| Aluminum silicate | (CAS No) 1327-36-2 | 3 - 7 | Skin Irrit. 2 Eye Irrit. 2A |
| Feldspar | (CAS No) 68476-25-5 | 1 - 5 | Eye Irrit. 2A STOT SE 3 |
| Titanium dioxide | (CAS No) 13463-67-7 | 0.1 - 1 | Acute Tox. 4 (Inhalation) Carc. 2 |
| Carbon black | (CAS No) 1333-86-4 | 0.1 - 1 | Carc. 2 |
| Hydrogen chloride | (CAS No) 7647-01-0 | 0.1 - 1 | Acute Tox. 3 (Inhalation) Skin Corr. 1A |

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

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.

4.2. Most important symptoms and effects, both acute and delayed

- 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.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

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.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

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.

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

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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

| Asphalt (8052-42-4) | | |
|-------------------------------|---|---|
| USA ACGIH | ACGIH TWA (mg/m ³) | 0.5 mg/m ³ |
| Quartz (14808-60-7) | | |
| USA ACGIH | ACGIH TWA (mg/m ³) | 0.025 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | (30)/(%SiO ₂ + 2) mg/m ³ TWA, total dust (250)/(%SiO ₂ + 5) mppcf TWA, respirable fraction (10)/(%SiO ₂ + 2) mg/m ³ TWA, respirable fraction |
| Mica (12001-26-2) | | |
| USA ACGIH | ACGIH TWA (mg/m ³) | 3 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 20 mppcf |
| Titanium dioxide (13463-67-7) | | |
| USA ACGIH | ACGIH TWA (mg/m ³) | 10 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 15 mg/m ³ |
| Carbon black (1333-86-4) | | |
| USA ACGIH | ACGIH TWA (mg/m ³) | 3 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 3.5 mg/m ³ |
| Hydrogen chloride (7647-01-0) | | |
| USA ACGIH | ACGIH Ceiling (ppm) | 2 ppm |
| USA OSHA | OSHA PEL (Ceiling) (mg/m ³) | 7 mg/m ³ |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 5 ppm |

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.

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

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|----------------------|
| Physical state | : Liquid. |
| Colour | : No data available. |
| Odour | : No data available. |
| Odour threshold | : No data available. |
| pH | : No data available. |
| Relative evaporation rate (butylacetate=1) | : No data available. |
| Melting point | : No data available. |
| Freezing point | : No data available. |
| Boiling point | : No data available. |
| Flash point | : No data available. |
| Self ignition temperature | : No data available. |
| Decomposition temperature | : No data available. |
| Flammability (solid, gas) | : Not flammable. |
| Vapour pressure | : No data available. |
| Relative vapour density at 20 °C | : No data available. |
| Relative density | : No data available. |
| Solubility | : No data available. |
| Log Pow | : No data available. |
| Log Kow | : No data available. |
| Viscosity, kinematic | : No data available. |
| Viscosity, dynamic | : No data available. |
| Explosive properties | : No data available. |
| Oxidising properties | : No data available. |
| Explosive limits | : No data available. |

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.

| GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian NQ | |
|--|--------------|
| LD50 oral rat | 3497 mg/kg |
| LD50 dermal rabbit | 4928 mg/kg |
| LC50 inhalation rat | >20 mg/l/4h |
| Asphalt (8052-42-4) | |
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |

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

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

| 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. |
|--------------------------------|---|

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

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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. |

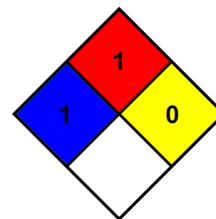
GemSeal® Guardian AE / GemSeal® Guardian PM / GemSeal® Guardian NQ

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 16: Other information

| | | |
|--------------------|---|---|
| Date of issue | : | 02/01/2016 |
| Revision date: | : | 02/01/2016 |
| Data sources | : | SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012. |
| 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