1 Identification

Product identifier

Trade name: **MONOKOTE Z-146**

SDS ID Number: 3002A

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

Specialty construction product. Not intended for other uses

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

W.R. Grace & Co. -Conn.
62 Whittemore Avenue
Cambridge, MA 02140 USA

Grace Canada, Inc.
294 Clements Road W.
Ajax, Ontario L1S 3C6 Canada

Information department:

Environmental Health & Safety
USA: +1-617-876-1400 (24 hours)
+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts
CAN: 1-905-683-8561 (24 hours)

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

Depending on the type of handling and use, airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable silica dust may cause silicosis. Occupational exposure to respirable crystalline silica should be monitored and controlled.

This product should be handled with care to avoid dust generation.

May cause damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.

Causes serious eye damage.

Causes skin irritation.

Sensitization possible through skin contact.

May cause respiratory irritation.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**

- GHS05
- GHS07
- GHS08

Danger

(Cont. on page 2)
Trade name: **MONOKOTE Z-146**

**Precautionary statements**
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust.
Wash thoroughly after handling.
In case of inadequate ventilation wear respiratory protection.
Wear protective gloves/protective clothing/eye protection.

If swallowed, rinse mouth. Do not induce vomiting. Call a poison center or doctor/physician if you feel unwell.
If on Skin, wash with plenty of soap and water. Wash contaminated clothing before reuse.
If inhaled, get medical advice/attention if you feel unwell.
If in eyes, remove contact lenses, if present and easy to do so. Rinse cautiously with water for several minutes.
If eye irritation persists: Get medical advice/attention.
If skin irritation occurs: Get medical advice/attention.
Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard description:** Danger

**NFPA ratings (scale 0 - 4)**

- Health = 2
- Fire = 0
- Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

- Health = *2
- Flammability = 0
- Reactivity = 0

**Other hazards**

Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

---

**3 Composition/information on ingredients**

**Chemical characterization:** Mixtures

**Description:** Mixture of the substances listed below with additional nonhazardous ingredients.

<table>
<thead>
<tr>
<th>Hazardous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>65997-15-1 Portland cement</td>
<td>50-100%</td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>2.0-5.0%</td>
</tr>
</tbody>
</table>

**Additional information:** For the wording of the listed risk phrases refer to section 16.

---

**4 First-aid measures**

**Description of first aid measures**

**General information:** Get medical advice/attention if you feel unwell.

**After inhalation:** If breathing has stopped, give artificial respiration then oxygen if needed.

**After skin contact:**
Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.
If skin irritation continues, consult a doctor.
After eye contact:
Rinse cautiously with water for several minutes.
Seek immediate medical advice.

After swallowing:
Rinse mouth.
Do not induce vomiting.

Information for doctor:
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Special hazards arising from the substance or mixture No further relevant information available.
Additional information No further relevant information available.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Avoid formation of dust.

Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:
Sweep up spilled product into receptacles.
Avoid formation of dust.
Vacuuming or wet sweeping may be used to avoid dust dispersal.
Dispose contaminated material as waste according to section 13 of the SDS.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling
Risk of serious damage to eyes.
Fit dust covers to mixers.
Prior to welding or cutting, Monokote must be removed from steel surfaces likely to be exposed to excessive heating.
Do not breathe dust.
Avoid contact with skin.
Danger of wet slippery surfaces.

**Information about protection against explosions and fires:** Keep respiratory protective device available.

**Conditions for safe storage, including any incompatibilities**

**Storage:**

**Further information about storage conditions:** Store in cool, dry conditions in well sealed original receptacles.

**Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see item 7.

#### Control parameters

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7 Quartz (SiO₂)</td>
</tr>
<tr>
<td>PEL (USA) see Quartz listing</td>
</tr>
<tr>
<td>REL (USA) Long-term value: 0.05* mg/m³</td>
</tr>
<tr>
<td>REL (USA) *respirable dust; See Pocket Guide App. A</td>
</tr>
<tr>
<td>TLV (USA) Long-term value: 0.025* mg/m³</td>
</tr>
<tr>
<td>TLV (USA) *as respirable fraction</td>
</tr>
</tbody>
</table>

**Additional information:** The lists that were valid during the creation were used as basis.
**Work/Hygienic Practices:** The usual precautionary measures for handling chemicals should be followed.

#### Exposure controls

Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organizational measures, eg. by isolating personnel from dusty areas. Remove and wash soiled clothing.

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Store protective clothing separately.

**Breathing equipment:**

Wear NIOSH-approved respiratory protection (generally a N-95 dust/mist respirator is appropriate) to prevent employee exposures from exceeding the limits specified in this section.

If Exposure Limits in Section 8.1 are exceeded, approved respiratory protection filter type P should be used.

**Protection of hands:**

**Alkaline resistant gloves**

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

**Material of gloves**

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.
### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Powder</td>
</tr>
<tr>
<td>Form:</td>
<td>Powder</td>
</tr>
<tr>
<td>Color:</td>
<td>According to product specification</td>
</tr>
<tr>
<td>Odor:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value (~):</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Flash point:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

| Decomposition temperature: |  |
| Auto igniting:             | Product is not selfigniting. |
| Danger of explosion:       | Product does not present an explosion hazard. |

| Explosion limits:         |  |
| Lower:                    | Not determined. |
| Upper:                    | Not determined. |
| VOC Content (max):        | Not determined. |

| Vapor pressure:           |  |
| Density: (~) at 20 °C (68 °F) | 21 g/cm³ (175.245 lbs/gal) |
| Relative density:         | Not determined. |
| Vapour density:           | Not applicable. |
| Evaporation rate:         | Not applicable. |

| Solubility in / Miscibility with |  |
| Water:                          | Not miscible or difficult to mix. |

<table>
<thead>
<tr>
<th>Partition coefficient (n-octanol/water):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Molecular weight:</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>
10 Stability and reactivity

Reactivity
Stable under normal conditions.

Chemical stability

Thermal decomposition: No decomposition if used according to specifications.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Cutting or welding may generate sulfur dioxide.

Additional information: See section 7 for information on handling, storage and conditions to be avoided.

11 Toxicological information

Prolonged and or massive exposure to respirable crystalline silica containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: Causes skin irritation.

on the eye: Causes serious eye damage.

inhalation: May cause respiratory irritation.

Ingestion: May cause damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.

Additional toxicological information:

Cementitious grouts and mortars are known to cause both irritant and allergic contact dermatitis. Prolonged skin contact can result in chemical burns. Prolonged exposure may cause risk of lung disease (i.e. silicosis and/or lung cancer).

Carcinogenic categories

IARC (International Agency for Research on Cancer) Human Carcinogenicity:

Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>1</td>
</tr>
<tr>
<td>9003-53-6 Expanded Polystyrene</td>
<td>3</td>
</tr>
</tbody>
</table>

NTP (National Toxicology Program)

K–Known to be carcinogenic, R–May reasonably be anticipated to be carcinogenic

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>K</td>
</tr>
</tbody>
</table>

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.
12 Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.

Additional ecological information:
General notes: Not known to be hazardous to water.

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods Comply with Federal, State and local regulations.
Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td></td>
</tr>
</tbody>
</table>

| UN proper shipping name    | Not applicable. |
| DOT, ADR, ADN, IMDG, IATA  |                 |

Transport hazard class(es)

| DOT, ADR, ADN, IMDG, IATA  | Not applicable. |
| Class                      |                 |

Packing group

| DOT, ADR, IMDG, IATA       | Not applicable. |

Environmental hazards:

Marine pollutant: No

Special precautions for user Not applicable.
Trade name: **MONOKOTE Z-146**

**Transport/Additional information:** Not classified as a dangerous good for transport by road, rail or air.

| DOT Remarks: | Not Regulated. |
| UN "Model Regulation": | - |

### 15 Regulatory information

**SARA (Superfund Amendments and Reauthorization Act)**

- **Section 302/304 (extremely hazardous substances):** None of the ingredients is listed.
- **Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):** None of the ingredients is listed.

**SARA Section 312/Tier I & II Hazard Categories:**

- Health Delayed (chronic): Yes
- Health Immediate (acute): Yes
- Flammable: No
- Reactive: No
- Pressure: No

**North America Chemical Inventory Status**

- **TSCA (Toxic Substances Control Act - United States):** All ingredients are listed or exempt from listing unless otherwise noted below.
- **CEPA (Canadian DSL):** All ingredients are listed or exempt from listing unless otherwise noted below.

**Right to Know Ingredient Disclosure**

- 65996-61-4 Cellulosic Fiber
- 9003-53-6 Expanded Polystyrene

**California Proposition 65**

- **Chemicals known to cause cancer:**
  - Quartz (SiO2)

- **Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:** None of the ingredients is listed.

**Carcinogenicity Categories**

- **EPA (Environmental Protection Agency):** None of the ingredients is listed.
- **TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists):** Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable
  - Quartz (SiO2) A2
- **NIOSH-Cancer (National Institute for Occupational Safety and Health):**
  - 14808-60-7 Quartz (SiO2)

(Cont. on page 9)
16 Other information

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."

Department issuing SDS:

W.R. Grace & Co. -Conn.
62 Whittemore Avenue
Cambridge, MA 02140 USA
USA: +1-617-876-1400 (24 hours)
+1-800-354-5414

Other Information:

There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore preventing the onset of silicosis will also reduce the cancer risk.

Date of preparation / last revision 06/03/2015 / -
The first date of preparation 02/19/2015
Number of revision times and the latest revision date 1.0 / 06/03/2015