SAFETY DATA SHEET

1. Identification

Product identifier: SSG 4000

Other means of identification
Synonyms: Silicone Sealant

Recommended use and restriction on use
Recommended use: Silicone Elastomer
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information
Momentive Performance Materials LLC
260 Hudson River Road
Waterford NY 12188

Contact person: commercial.services@momentive.com

Telephone
General information
+1-800-295-2392

Emergency telephone number
Supplier: CHEMTREC
1-800-424-9300

2. Hazard(s) Identification

Hazard Classification
Health Hazards
Toxic to reproduction Category 2

Label Elements

Hazard Symbol:

Signal Word: Warning
Hazard Statement: H361; Suspected of damaging fertility or the unborn child.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: If exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Calcium Carbonate</td>
<td>471-34-1</td>
<td>50 - &lt;100%</td>
<td># This substance has workplace exposure limit(s).</td>
</tr>
<tr>
<td>Silane, dichlorodimethyl-, reaction products with silica, 68611-44-9</td>
<td>68611-44-9</td>
<td>5 - &lt;10%</td>
<td># This substance has workplace exposure limit(s).</td>
</tr>
<tr>
<td>(1) Carbon Black</td>
<td>1333-86-4</td>
<td>0.1 - &lt;1%</td>
<td># This substance has workplace exposure limit(s).</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>556-67-2</td>
<td>0.1 - &lt;1%</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

(1) The respirable particle(s) listed above are inextricably bound within the polymer matrix, and therefore does not present an inhalation hazard during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

4. First-aid measures
Ingestion: If swallowed, do NOT induce vomiting. Give a glass of water.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

Skin Contact: To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: This product reacts with moisture in the acid contents of the stomach to form methanol. Treatment is symptomatic and supportive.

5. Fire-fighting measures

General Fire Hazards: Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: All standard extinguishing agents are suitable.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical: In case of fire, carbon monoxide and carbon dioxide may be formed. Acute overexposure to the products of combustion may result in irritation of the respiratory tract. Reacts with water liberating small amounts of methanol. This material is reactive with water, but the reaction will not significantly increase the fire severity.

Special protective equipment and precautions for firefighters
Special fire fighting procedures: Move container from fire area if it can be done without risk. Cool fire-endangered containers with water.

Special protective equipment for fire-fighters: Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep container closed. Avoid contact with skin and eyes. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the finger and hands. Product releases methanol during application and curing. Keep out of reach of children. See Section 8 of the SDS for Personal Protective Equipment.

Methods and material for containment and cleaning up: Wipe, scrape or soak up in an inert material and put in a container for disposal. Wear proper protective equipment as specified in the protective equipment section.

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is not expected.

Conditions for safe storage, including any incompatibilities: Keep away from heat, sparks and open flame. Keep container tightly closed.

8. Exposure controls/personal protection

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Calcium Carbonate -</td>
<td>REL</td>
<td>10 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Calcium Carbonate -</td>
<td>REL</td>
<td>5 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td>Respirable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Calcium Carbonate -</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Total dust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Calcium Carbonate -</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Respirable fraction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Calcium Carbonate -</td>
<td>TWA</td>
<td>15 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
<tr>
<td>Total dust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Calcium Carbonate -</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
<tr>
<td>Respirable fraction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Carbon Black -</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td>Inhalable fraction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Carbon Black</td>
<td>REL</td>
<td>0.1 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
<tr>
<td></td>
<td>REL</td>
<td>3.5 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</td>
</tr>
</tbody>
</table>
This product contains one or more substances with an occupational exposure limit. However, the respirable particle(s) of this/these substance(s) are inextricably bound within the polymer matrix. Therefore, we do not expect an exposure to this/these substance(s) during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

### Appropriate Engineering Controls

Eye wash facilities and emergency shower must be available when handling this product. Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

### Individual protection measures, such as personal protective equipment

- **General information:** No data available.
- **Eye/face protection:** Safety glasses with side shields
- **Hand Protection:** Rubber gloves are recommended.
- **Other:** Wear suitable protective clothing and eye/face protection.
- **Respiratory Protection:** If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).
- **Hygiene measures:** Provide adequate ventilation. Observe good industrial hygiene practices. Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

### 9. Physical and chemical properties

#### Appearance

- **Physical state:** Solid
- **Form:** Paste
- **Color:** Black
- **Odor:** No data available.
- **Odor threshold:** No data available.
- **pH:** No data available.

<table>
<thead>
<tr>
<th></th>
<th>PEL</th>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3.5 mg/m³</td>
</tr>
</tbody>
</table>
Melting point/freezing point: No data available.
Initial boiling point and boiling range: No data available.
Flash Point: No data available.
Evaporation rate: No data available.
Flammability (solid, gas): No data available.
Upper/lower limit on flammability or explosive limits
- Flammability limit - upper (%): No data available.
- Flammability limit - lower (%): No data available.
- Explosive limit - upper (%): No data available.
- Explosive limit - lower (%): No data available.
Heat of combustion: No data available.

Vapor pressure: not applicable
Vapor density: No data available.
Density: ca. 1,520 g/cm³
Relative density: No data available.
Solubility(ies)
- Solubility in water: Insoluble
- Solubility (other): Insoluble
Partition coefficient (n-octanol/water) Log Pow: No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No decomposition if stored and applied as directed.
SADT: No data available.
Viscosity, dynamic: No data available.
Viscosity, kinematic: > 20.5 mm²/s (40 °C)
VOC: 28 g/l

10. Stability and reactivity

Reactivity: No dangerous reaction if used as recommended.
Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid: Keep away from moisture. Keep away from heat, sparks and open flame.
Incompatible Materials: Strong Acids, Strong Bases Contact with water.
Hazardous Decomposition Products: Carbon dioxide Silicon dioxide. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

11. Toxicological information

Information on likely routes of exposure

Ingestion: No data available.
Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.
Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 13,187.05 mg/kg

Specified substance(s):
Octamethylcyclotetrasiloxane LD 50 (Rat): 4,800 mg/kg

Dermal
Product: Not classified for acute toxicity based on available data.

Specified substance(s):
Octamethylcyclotetrasiloxane LD 50 (Rat): > 2,400 mg/kg

Inhalation
Product: Not classified for acute toxicity based on available data.

Specified substance(s):
Octamethylcyclotetrasiloxane LC50 (Rat): 36 mg/l
Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

**Specified substance(s):**
- Octamethylcyclotetrasiloxane

OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rat): No skin irritation

Serious Eye Damage/Eye Irritation
Product: No data available.

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**
No carcinogenic components identified

Germ Cell Mutagenicity

**In vitro**
Product: No data available.

**Specified substance(s):**
- Octamethylcyclotetrasiloxane

Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)
Mouse Lymphoma Assay (OECD Guidline 476): negative (not mutagenic)

**In vivo**
Product: No data available.

**Specified substance(s):**
- Octamethylcyclotetrasiloxane

Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

Reproductive toxicity

SDS_US
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.
Other effects:

Octamethylcyclotetrasiloxane
Ingestion: Rodents given large doses via oral gavages of Octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size).

Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents.

Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) with Octamethylcyclotetrasiloxane (D4). Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found.

Interim results from a two generation reproductive study in rats exposed to 500 and 700 ppm D4 (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) resulted in a statistically significant decrease in live mean litter size as well as extended periods of off-spring delivery (dystocia). These results were not observed at the 70 and 300ppm dosing levels.

Preliminary results from an ongoing 24-month combined chronic/oncogenicity study in rats exposed to 10, 30, 150, or 700 ppm D4 showed test-article related effects in the kidney (male and female) and uterus of rats exposed for 12 to 24 months. These effects include increased kidney weight and severity of chronic nephropathy, increased uterine weight, increased incidence of endometrial cell hyperplasia, and an increased incidence of endometrial adenomas. All of these effects are limited to the 700 ppm exposure group.

These results have been shown to be rat-specific. Further studies are ongoing.

In developmental toxicity studies, rats and rabbits were exposed to Octamethylcyclotetrasiloxane at concentrations up to 700 ppm and 500 ppm respectively. No teratogenic effects (birth defects) were observed in either study.
12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

Specified substance(s):
Octamethylcyclotetrasiloxane 3.7 % (29 d, 310 Ready Biodegradability - CO₂ in Sealed Vessels (Headspace Test)) Not readily biodegradable.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
Octamethylcyclotetrasiloxane Fathead Minnow, Bioconcentration Factor (BCF): 12.40

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.
Mobility in soil: No data available.

**Known or predicted distribution to environmental compartments**

1. Calcium Carbonate
   Silane, dichlorodimethyl-, reaction products with silica, 68611-44-9
   No data available.

2. Carbon Black
   Octamethylcyclotetrasiloxane
   No data available.

**Other adverse effects:** No data available.

### 13. Disposal considerations

**General information:** The generation of waste should be avoided or minimized wherever possible. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations.

**Contaminated Packaging:** Dispose of as unused product.

### 14. Transport information

**DOT**
Not regulated.

**IMDG**
Not regulated.

**IATA**
Not regulated.

**Special precautions for user:** This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.
US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Silane, dichlorodimethyl-, reaction products with silica, 68611-44-9</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

(1) Carbon Black Carcinogenic.
Methanol Maximum Allowable Dose Level
(MADL): 47000 µg/day.
Developmental toxin.
US. New Jersey Worker and Community Right-to-Know Act

**Chemical Identity**
(1) Calcium Carbonate
Siloxanes and Silicones, di-Me hydroxy terminated
SILOXANES AND SILICONES, DI-ME
Silane, dichlorodimethyl-, reaction products with silica, 68611-44-9
SILOXANES AND SILICONES, DI-ME
(1) Carbon Black
Octamethylcyclotetrasiloxane

US. Massachusetts RTK - Substance List
No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

**Chemical Identity**
(1) Calcium Carbonate

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.
### Inventory Status:

<table>
<thead>
<tr>
<th>Country/Inventory</th>
<th>Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia AICS:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>Canada DSL Inventory List:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>EINECS, ELINCS or NLP:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>Japan (ENCS) List:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>China Inv. Existing Chemical Substances:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>Korea Existing Chemicals Inv. (KECI):</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>Canada NDSL Inventory:</td>
<td>Not in compliance with the inventory.</td>
<td>None.</td>
</tr>
<tr>
<td>Philippines PICCS:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>US TSCA Inventory:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
<tr>
<td>New Zealand Inventory of Chemicals:</td>
<td>Not in compliance with the inventory.</td>
<td>None.</td>
</tr>
<tr>
<td>Taiwan Chemical Substance Inventory:</td>
<td>On or in compliance with the inventory</td>
<td>None.</td>
</tr>
</tbody>
</table>

### 16. Other information, including date of preparation or last revision

**HMIS Hazard ID**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

**Issue Date:** 07/03/2017

**Revision Date:** No data available.

**Version #:** 2.2

**Further Information:** No data available.
Disclaimer:

Notice to reader

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (>30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives. Keep out of the reach of children.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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