SAFETY DATA SHEET

1. Identification

Product identifier: SSG4710 CTG

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

Physical Hazards

Flammable liquids Category 4

Health Hazards

Skin Corrosion/Irritation Category 1B
Serious Eye Damage/Eye Irritation Category 1
Skin sensitizer Category 1
Germ Cell Mutagenicity Category 2
Toxic to reproduction Category 1B
Toxic to reproduction Category 1B
Specific Target Organ Toxicity - Single Exposure Category 1

Target Organs
1. respiratory tract irritation, thymus

Label Elements

Hazard Symbol:

![Hazard Symbol Image]

Signal Word: Danger

Hazard Statement:
- Combustible liquid.
- Causes severe skin burns and eye damage.
- May cause an allergic skin reaction.
- May damage fertility or the unborn child.
- Suspected of causing genetic defects.
- Causes damage to organs.

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. Wear protective gloves. Wear eye protection/face protection. Wear protective clothing. Keep away from open flames/hot surfaces. - No smoking. Do not breathe vapors. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response:
IF exposed: Call a POISON CENTER/doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: 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. In case of fire: Use dry chemical powder to extinguish.

Storage:
Store locked up. Store in a well-ventilated place. Keep cool.

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.
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>gamma-Aminopropyltriethoxysilane</td>
<td>919-30-2</td>
<td>10 - &lt;20%</td>
<td>No data available.</td>
</tr>
<tr>
<td>SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H₄SiO₄), tetrapropyl ester</td>
<td>682-01-9</td>
<td>5 - &lt;10%</td>
<td>No data available.</td>
</tr>
<tr>
<td>Tris(3(trimethoxysilyl)propyl)isocyanurate</td>
<td>26115-70-8</td>
<td>5 - &lt;10%</td>
<td>No data available.</td>
</tr>
<tr>
<td>DIBUTYL TINOXIDE (48% as Tin)</td>
<td>818-08-6</td>
<td>1 - &lt;3%</td>
<td># This substance has workplace exposure limit(s).</td>
</tr>
<tr>
<td>(1) Carbon Black</td>
<td>1333-86-4</td>
<td>1 - &lt;5%</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: Call a physician or poison control center immediately.

Inhalation: Move to fresh air. Consult a physician after significant exposure.

Skin Contact: Flush skin with large amounts of water for at least 15 minutes until no evidence of chemical remains.

Eye contact: Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms: Corrosive to skin and eyes.

Hazards: No data available.
Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: All standard extinguishing agents are suitable.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: No data available.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Corrosive MaterialFirefighters 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: Use personal protective equipment.

Methods and material for containment and cleaning up: Take up with an absorbent for chemicals or, otherwise use dry sand. Sweep up or vacuum up spillage and collect in suitable container for disposal. 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. Warn other workers of spill. Keep unauthorized personnel away.

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is not expected.
Conditions for safe storage, including any incompatibilities:
Keep container tightly closed and in a well-ventilated place. Store in original container. Keep container tightly closed and in a well-ventilated place. Store in original container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Carbon Black - Inhalable fraction.</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</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>
<tr>
<td></td>
<td>PEL</td>
<td>3.5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>DIBUTYL TINOXIDE (48% as Tin) - as Sn</td>
<td>STEL</td>
<td>0.2 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td></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>PEL</td>
<td>0.1 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</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
Use only in well-ventilated areas.

Individual protection measures, such as personal protective equipment

General information: Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

Eye/face protection: Monogoggles

Skin Protection
Hand Protection: Rubber or plastics gloves

Other: Wear suitable protective clothing and eye/face protection.
### 9. Physical and chemical properties

**Appearance**
- **Physical state:** solid
- **Form:** solid
- **Color:** Black
- **Odor:** amine like
- **Odor threshold:** No data available.
- **pH:** not applicable
- **Melting point/freezing point:** ca. -29.00 °C
- **Initial boiling point and boiling range:** not applicable
- **Flash Point:** > 63 °C (Closed Cup)
- **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. 1.0 g/cm³
- **Relative density:** ca. 1.00

**Solubility(ies)**
- **Solubility in water:** Reactive.
- **Solubility (other):** Hexanes

**Partition coefficient (n-octanol/water) Log Pow:** No data available.

**Auto-ignition temperature:** No data available.

**Decomposition temperature:** No data available.

**SADT:** No data available.

**Viscosity, dynamic:** No data available.
- **Viscosity, kinematic:** No data available.
- **VOC:** 185 g/l
10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: No data available.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: Keep away from any contact with water.

Incompatible Materials: Reacts with water liberating small amounts of methanol. Reacts with water forming ethanol. Avoid contact with acids and oxidizing substances.


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: not applicable
Specified substance(s):
Tris(3(trimethoxysilyl)propyl)isocyanurate
LD 50 (Rat, No data available.): 2,346 mg/kg
DIBUTYL TINOXIDE (48% as Tin)
LD 50 (Rat): 487 mg/kg
Octamethylcyclotetrasiloxane
LD 50 (Rat): 4,800 mg/kg
LD 50 (Mouse): 1,700 mg/kg

Dermal Product: not applicable

Specified substance(s):
Tris(3(trimethoxysilyl)propyl)isocyanurate
LD 50 (Rabbit, No data available.): 18,000 mg/kg
Octamethylcyclotetrasiloxane
LD 50 (Rat): 2,400 mg/kg

Inhalation Product: not applicable

Specified substance(s):
Octamethylcyclotetrasiloxane
LC50 (Rat): 12.1 mg/l
LC50 (Rat): 36 mg/l

Repeated dose toxicity Product: No data available.

Specified substance(s):
gamma-Aminopropyltriethoxysilane
NOAEL (Rat, Oral, 90 d): 200 mg/kg

Skin Corrosion/Irritation Product:
OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rabbit, 4 h): The health hazard evaluation is based on the toxicological properties of a similar material.

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

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s):
- gamma-Aminopropyltriethoxysilane: Ames-Test: negative
- Specified substance(s):
- Octamethylcyclotetrasiloxane: Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)); negative (not mutagenic)
- Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

In vivo

Product: No data available.

Specified substance(s):
- Specified substance(s):
- gamma-Aminopropyltriethoxysilane: Micronucleus test (mouse): negative
- Specified substance(s):
- Octamethylcyclotetrasiloxane: Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Target Organs

Specific Target Organ Toxicity - Single Exposure: respiratory tract irritation, thymus
Aspiration Hazard
Product: No data available.

Other effects: Contains dibutyltin compound(s) - May impair fertility. May cause harm to unborn child.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

**Fish**
Product: No data available.

**Specified substance(s):**
- gamma-Aminopropyltriethoxysilane
  - LC50 (Brachydanio rerio, 96 h): > 934 mg/l

**Aquatic Invertebrates**
Product: No data available.

**Specified substance(s):**
- gamma-Aminopropyltriethoxysilane
  - EC50 (Daphnia magna, 48 h): 331 mg/l

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.

**Specified substance(s):**
- gamma-Aminopropyltriethoxysilane
  - EC50 (Desmodesmus subspicatus (green algae), 72 h): > 1,000 mg/l
  - NOEC (Desmodesmus subspicatus (green algae), 72 h): 1.3 mg/l
Persistence and Degradability

Biodegradation
Product: No data available.

Specified substance(s):
- gamma-Aminopropyltriethoxysilane: 67 % (28 d) Not readily degradable. hydrolyses
- 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
- gamma-Aminopropyltriethoxysilane: No data available.
- SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H4SiO4), tetrapropyl ester: No data available.
- Tris(3(trimethoxysilyl)propyl)isocyanurate: No data available.
- DIBUTYL TINOXIDE (48% as Tin): No data available.
- (1) Carbon Black: No data available.
- Octamethylcyclotetrasiloxane: No data available.

Other adverse effects:
No data available.
13. Disposal considerations

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

Contaminated Packaging: No data available.

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.

15. Regulatory information

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
Fire Hazard
Immediate (Acute) Health Hazards
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>gamma-Aminopropyltriethoxysilane</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H4SiO4), tetrapropyl ester</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Tris(3(trimethoxysilyl)propyl)isocyanurate</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>DIBUTYL TINOXIDE (48% as Tin)</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>(1) 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.

US. New Jersey Worker and Community Right-to-Know Act

<table>
<thead>
<tr>
<th>Chemical Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILOXANES AND SILICONES, DI-ME</td>
</tr>
<tr>
<td>gamma-Aminopropyltriethoxysilane</td>
</tr>
<tr>
<td>Treated Fumed Silica</td>
</tr>
<tr>
<td>SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H4SiO4), tetrapropyl ester</td>
</tr>
<tr>
<td>Tris(3(trimethoxysilyl)propyl)isocyanurate</td>
</tr>
<tr>
<td>DIBUTYL TINOXIDE (48% as Tin)</td>
</tr>
<tr>
<td>Octamethylcyclotetrasiloxane</td>
</tr>
</tbody>
</table>

US. Massachusetts RTK - Substance List
No ingredient regulated by MA Right-to-Know Law present.
SSG4710 CTG

US. Pennsylvania RTK - Hazardous Substances
No ingredient regulated by PA Right-to-Know Law present.

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

Inventory Status:

<table>
<thead>
<tr>
<th>Inventory Status</th>
<th>Australia AICS:</th>
<th>Remarks: None.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>Canada DSL Inventory List:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>EU EINECS List:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>Japan (ENCS) List:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>China Inventory of Existing Chemical Substances:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>Korea Existing Chemicals Inv. (KECI):</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>Canada NDSL Inventory:</td>
<td>n (Negative listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>Philippines PICCS:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>US TSCA Inventory:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>New Zealand Inventory of Chemicals:</td>
<td>y (positive listing)</td>
<td>Remarks: None.</td>
</tr>
<tr>
<td>Taiwan. Taiwan inventory (CSNN):</td>
<td>n (Negative listing)</td>
<td>Remarks: 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>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazards</td>
<td>1</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: 03/09/2017
Revision Date: No data available.
Version #: 3.0
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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