SAFETY DATA SHEET

1. Identification

Product identifier: PENSIL*200

Other means of identification Not available.
Recommended use and restriction on use
  Recommended use: 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
  Not classified

Label Elements

  Hazard Symbol: No symbol
  Signal Word: No signal word.
  Hazard Statement: not applicable
  Precautionary Statements: not applicable

Other hazards which do not result in GHS classification: None.
3. Composition/information on ingredients

<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) QUARTZ</td>
<td>14808-60-7</td>
<td>20 - &lt;50%</td>
<td># This substance has workplace exposure limit(s).</td>
</tr>
<tr>
<td>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>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>0.1 - &lt;1%</td>
<td># This substance has workplace exposure limit(s).</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:**
Wash with soap and water.

**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:** None known.
- **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: No data available.

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: 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: Avoid contact with skin and eyes. Keep out of reach of children. Keep container tightly closed.

Methods and material for containment and cleaning up: Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard.

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 out of the reach of children.

8. Exposure controls/personal protection

Control Parameters
Occupational Exposure Limits
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.

### 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
Safety glasses with side shields

#### Skin Protection

- **Hand Protection:** Cloth gloves.
- **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: No data available.

9. Physical and chemical properties

Appearance
- Physical state: liquid
- Form: liquid
- Color: Black
- Odor: Faint
- Odor threshold: No data available.
- pH: not applicable
- Melting point/freezing point: not applicable
- Initial boiling point and boiling range: > 260 °C
- Flash Point: 177.00 °C (Tagliabue Closed Cup)
- Evaporation rate: < 1
- 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: Negligible

Vapor density: not applicable

Density: ca. 1.2 g/cm³

Relative density: 1.21

Solubility(ies)
- Solubility in water: partly soluble
- Solubility (other): PARTIAL IN TOLUENE

Partition coefficient (n-octanol/water) Log Pow: Not determined.

Auto-ignition temperature: No data available.
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: None known.

Incompatible Materials: None known.

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:** Not classified for acute toxicity based on available data.
- **Specified substance(s):**
  - TITANIUM DIOXIDE
  - LD 50 (Rat): > 10,000 mg/kg

**Dermal**
- **Product:** Not classified for acute toxicity based on available data.
- **Specified substance(s):**
  - TITANIUM DIOXIDE
  - LD 50 (Rabbit): > 10,000 mg/kg

**Inhalation**
- **Product:** Not classified for acute toxicity based on available data.
- **Specified substance(s):**
  - TITANIUM DIOXIDE
  - LC50 (Rat): > 6.8 mg/l

**Repeated dose toxicity**
- **Product:** No data available.

**Skin Corrosion/Irritation**
- **Product:** No data available.

**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:

(1) QUARTZ Overall evaluation: 1. Carcinogenic to humans.
Carbon Black Overall evaluation: 2B. Possibly carcinogenic to humans.
TITANIUM DIOXIDE Overall evaluation: 2B. Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:
(1) QUARTZ Known To Be Human Carcinogen.

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro Product: No data available.

In vivo Product: No data available.

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.

Aspiration Hazard Product: No data available.

Other effects: Attention: Not for injection into humans. None.
12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

- **Fish**
  - **Product:** No data available.
  - **Specified substance(s):**
    - TITANIUM DIOXIDE LC0 (Leuciscus idus, 48 h): > 1,000 mg/l

- **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):**
    - TITANIUM DIOXIDE 0 %

- **BOD/COD Ratio**
  - **Product:** No data available.

Bioaccumulative potential

- **Bioconcentration Factor (BCF)**
  - **Product:** No data available.

- **Partition Coefficient n-octanol / water (log Kow)**
  - **Product:** Log Kow: Not determined.
Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

(1) QUARTZ No data available.
Carbon Black No data available.
TITANIUM DIOXIDE 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: 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.

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):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>100 lbs.</td>
</tr>
</tbody>
</table>

None present or none present in regulated quantities.
Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Acute 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>(1) QUARTZ</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE</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) QUARTZ Carcinogenic.
Carbon Black Carcinogenic.
TITANIUM DIOXIDE Carcinogenic.
Ethylbenzene No significant risk level: 41 µg/day. Carcinogenic.

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

<table>
<thead>
<tr>
<th>Chemical Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyvinylsiloxane</td>
</tr>
<tr>
<td>(1) QUARTZ</td>
</tr>
<tr>
<td>Polyalkylalkenylsiloxane</td>
</tr>
<tr>
<td>Water</td>
</tr>
<tr>
<td>Carbon Black</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE</td>
</tr>
</tbody>
</table>
US. Massachusetts RTK - Substance List

Chemical Identity
(1) QUARTZ

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
(1) QUARTZ
Carbon Black

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Remarks: None.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia AICS:</td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>EU EINECS List:</td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>Korea Existing Chemicals Inv. (KECI):</td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>Canada DSL Inventory List:</td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>Canada NDSL Inventory:</td>
<td>n (Negative listing)</td>
<td></td>
</tr>
<tr>
<td>Philippines PICCS:</td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>US TSCA Inventory:</td>
<td>y (positive listing)</td>
<td></td>
</tr>
<tr>
<td>Taiwan. Taiwan inventory (CSNN):</td>
<td>n (Negative listing)</td>
<td></td>
</tr>
</tbody>
</table>

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

HMIS Hazard ID

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Physical Hazards</td>
<td>0</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: 11/11/2016

Revision Date: No data available.

Version #: 1.3

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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SAFETY DATA SHEET

1. Identification

Product identifier: PENSIL*200

Other means of identification Not available.
Recommended use and restriction on use
Recommended use: 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
Carcinogenicity Category 2

Unknown toxicity - Health

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, oral</td>
<td>0 %</td>
</tr>
<tr>
<td>Acute toxicity, dermal</td>
<td>0 %</td>
</tr>
<tr>
<td>Acute toxicity, inhalation, vapor</td>
<td>0 %</td>
</tr>
<tr>
<td>Acute toxicity, inhalation, dust or mist</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Label Elements

Hazard Symbol:
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) QUARTZ</td>
<td>14808-60-7</td>
<td>20 - &lt;50%</td>
<td># This substance has workplace exposure limit(s).</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>0.1 - &lt;1%</td>
<td># This substance has workplace exposure limit(s).</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

<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Rinse mouth.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>None known.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Wash area with soap and water.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</td>
</tr>
</tbody>
</table>

#### Most important symptoms/effects, acute and delayed

- **Symptoms:** None known.
- **Hazards:** No data available.

#### Indication of immediate medical attention and special treatment needed

- **Treatment:** No data available.

### 5. Fire-fighting measures

<table>
<thead>
<tr>
<th>General Fire Hazards:</th>
<th>No data available.</th>
</tr>
</thead>
</table>

#### Suitable (and unsuitable) extinguishing media

- **Suitable extinguishing media:** All standard extinguishing agents are suitable.
- **Unsuitable extinguishing media:** No data available.

#### 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:** None known.

### 6. Accidental release measures
Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin and eyes. Keep away from heat, sparks, and open flame. Small amounts of hydrogen may be evolved during shipping and storage, creating a potential for container swelling. Excessive swelling may result in rupturing of the container. Accordingly, if containers swell, vent containers to relieve pressure. Take appropriate precautionary measures when opening to prevent ignition of any hydrogen present. Keep container tightly closed and in a well-ventilated place.

Methods and material for containment and cleaning up:

Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.

7. Handling and storage

Precautions for safe handling:

Sensitivity to static discharge is not expected.

Conditions for safe storage, including any incompatibilities:

Pack only into unbreakable packing materials (no glass containers!) to avoid contact with substances mentioned in Section 10. Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep away from sources of ignition - No smoking.

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) QUARTZ - Respirable fraction.</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td>(1) QUARTZ - Respirable dust.</td>
<td>REL</td>
<td>0.05 mg/m³</td>
<td>US. NIOSH: Pocket Guide to Chemical Hazards (2010)</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>
<tr>
<td>(1) QUARTZ - Respirable.</td>
<td>TWA</td>
<td>2.4 millions of particles per cubic foot of air</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td>(1) QUARTZ - Total dust.</td>
<td>TWA</td>
<td>0.3 mg/m³</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>TWA</td>
<td>20 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2015)</td>
</tr>
<tr>
<td></td>
<td>REL</td>
<td>100 ppm</td>
<td>435 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>125 ppm</td>
<td>545 mg/m³</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>100 ppm</td>
<td>435 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>435 mg/m³</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.

### Biological Limit Values

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylbenzene (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)</td>
<td>0.15 g/g (Creatinine in urine)</td>
<td>ACGIH BEI (03 2015)</td>
</tr>
</tbody>
</table>

### Appropriate Engineering Controls

Eye wash facilities and emergency shower must be available when handling this product. Use only with adequate ventilation.

### 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:** Safety glasses with side shields

**Skin Protection**

**Hand Protection:** Cloth gloves.

**Other:** None known.

**Respiratory Protection:** None known.

**Hygiene measures:** No data available.

### 9. Physical and chemical properties

**Appearance**

- **Physical state:** liquid
- **Form:** liquid
- **Color:** Off-white
- **Odor:** Faint
- **Odor threshold:** No data available.
- **pH:** not applicable
- **Melting point/freezing point:** not applicable
Initial boiling point and boiling range: > 260 °C
Flash Point: 177.00 °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. 1.2 g/cm³
Relative density: 1.20
Solubility(ies)
  - Solubility in water: Negligible
  - Solubility (other): Toluene

Partition coefficient (n-octanol/water) Log Pow: Not determined.
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: No data available.

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:
Product generates flammable gas on contact with acids, bases or oxidizing substances.

Incompatible Materials:
"Avoid contact with acidic, basic, or oxidizing agents, and "metallic catalysts like tin soaps and noble metals (Pt, Rh," etc.).
Hazardous Decomposition Products: Oxides of silicon. Carbon oxides. 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: Not classified for acute toxicity based on available data.
Dermal Product: Not classified for acute toxicity based on available data.
Inhalation Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity Product: No data available.
Skin Corrosion/Irritation Product: No data available.
Specified substance(s):
Ethylbenzene (Rabbit): Corrosive

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:
(1) QUARTZ Overall evaluation: 1. Carcinogenic to humans.
Ethylbenzene Overall evaluation: 2B. Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:
(1) QUARTZ Known To Be Human Carcinogen.

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

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.
Aspiration Hazard
Product: No data available.

Other effects: This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive. None.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Ethylbenzene
LC0 (Leuciscus idus, 48 h): 26 mg/l
LC100 (Leuciscus idus, 48 h): 70 mg/l
LC50 (Leuciscus idus, 48 h): 44 mg/l
LC50 (Salmo gairdneri, 96 h): 4.2 mg/l

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
Ethylbenzene
LC0 (Daphnia magna): 137 mg/l
(Daphnia magna): 184 mg/l
LC100 (Daphnia magna): 200 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.
Persistence and Degradability

**Biodegradation**
- **Product:** No data available.

**Specified substance(s):**
- Ethylbenzene: 68 % (28 d, No data available.)

**BOD/COD Ratio**
- **Product:** No data available.

Bioaccumulative potential

**Bioconcentration Factor (BCF)**
- **Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**
- **Product:** Log Kow: Not determined.

Mobility in soil:
- No data available.

**Known or predicted distribution to environmental compartments**
- (1) QUARTZ: No data available.
- Ethylbenzene: 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:** Dispose of as unused product.

14. Transport information

**DOT**
- Not regulated.

**IMDG**
- Not regulated.

**IATA**
- Not regulated.

SDS_US
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. As a result of the potential formation of hydrogen gas under certain conditions, Momentive Performance Materials recommends that this product should be shipped using a mode of transportation other than air (IATA-C, IATA-P).

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):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>100 lbs.</td>
</tr>
</tbody>
</table>
|                   | 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>(1) QUARTZ</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reporting threshold for other users</th>
<th>Reporting threshold for manufacturing and processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylbenzene</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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) QUARTZ Carcinogenic.
Ethylbenzene No significant risk level: 41 µg/day. Carcinogenic.

US. New Jersey Worker and Community Right-to-Know Act
Chemical Identity
polyvinylsiloxane
(1) QUARTZ
Methylhydrogenpolysiloxane
Polyalkylalkenylsiloxane
Xylene
Ethylbenzene

US. Massachusetts RTK - Substance List
Chemical Identity
(1) QUARTZ

US. Pennsylvania RTK - Hazardous Substances
Chemical Identity
(1) QUARTZ

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

<table>
<thead>
<tr>
<th>Region</th>
<th>Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia AICS:</td>
<td>y (positive listing)</td>
<td>None.</td>
</tr>
<tr>
<td>EU EINECS List:</td>
<td>y (positive listing)</td>
<td>None.</td>
</tr>
<tr>
<td>Korea Existing Chemicals Inv. (KECI):</td>
<td>y (positive listing)</td>
<td>None.</td>
</tr>
<tr>
<td>Canada DSL Inventory List:</td>
<td>y (positive listing)</td>
<td>None.</td>
</tr>
<tr>
<td>Canada NDSL Inventory:</td>
<td>n (Negative listing)</td>
<td>None.</td>
</tr>
<tr>
<td>Philippines PICCS:</td>
<td>y (positive listing)</td>
<td>None.</td>
</tr>
<tr>
<td>US TSCA Inventory:</td>
<td>y (positive listing)</td>
<td>None.</td>
</tr>
<tr>
<td>Taiwan. Taiwan inventory (CSNN):</td>
<td>n (Negative listing)</td>
<td>None.</td>
</tr>
</tbody>
</table>

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

HMIS Hazard ID

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>* 0</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazards</td>
<td>1</td>
</tr>
<tr>
<td>PERSONAL PROTECTION</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: 11/11/2016
Revision Date: No data available.
Version #: 1.5
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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