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# SAFETY DATA SHEET

### FOR INDUSTRIAL USE ONLY

#### SCS2811T

### Section 1. Product and company identification

| Product name                                      |   | : SCS2811T   |
|---|---|--|
| Material uses                                     |   | : Adhesive   |
| Manufacturer/Importer/Distri<br>butor Information | : | Momentive Amer Ind.<br>260 Hudson River Road<br>Waterford NY 12188 |
| Contact person                                    | : | 4information@momentive.com   |
| Telephone   | : | General information<br>+1-800-295-2392                             |
| Emergency telephone number<br>Supplier            | : | CHEMTREC<br>1-800-424-9300   |

### Section 2. Hazards identification

| Classification of the substance or mixture | : | SKIN SENSITIZATION - Category 1<br>TOXIC TO REPRODUCTION - Category 1B<br>TOXIC TO REPRODUCTION - Category 1B  |
|--|---|--|
| GHS label elements                         |   |  |
| Hazard pictograms                          | : |  |
| Signal word<br>Hazard statements           | : | Danger<br>H317 May cause an allergic skin reaction.<br>H360F May damage fertility.<br>H360 May damage the unborn child.  |
| Precautionary statements                   |   |  |
| General                                    | : | Not applicable.  |
| Prevention                                 | : | Obtain special instructions before use.<br>Do not handle until all safety precautions have been read and<br>understood.<br>Use personal protective equipment as required.<br>Wear protective gloves.<br>Avoid breathing dust.<br>Contaminated work clothing should not be allowed out of the<br>workplace. |

| Response  | : | IF exposed or concerned:<br>Get medical attention.<br><b>IF ON SKIN:</b><br>Wash with plenty of soap and water.<br>Wash contaminated clothing before reuse.<br>If skin irritation or rash occurs:<br>Get medical attention.   |
|---|---|---|
| Storage   | : | Store locked up.  |
| Disposal  | : | P501Dispose of contents and container in accordance with all local, regional, national and international regulations.   |
| Other hazards which do not result in classification | : | Uncured product is irritating to eyes, skin, and respiratory tract.<br>Generates methanol during cure. Generates ammonia during<br>cure.Uncured product is irritating to eyes, skin, and respiratory<br>system. Generates methanol during cure. Generates ammonia during<br>cure. |

### Section 3. Composition/information on ingredients

| Substance/mixture | : | Mixture       |
|-------------------|---|---------------|
| Chemical name     | : | Not available |

| Hazardous ingredients  | % by weight | CAS<br>number |
|--|-------------|---------------|
| Octamethylcyclotetrasiloxane                                       | 1 - 5       | 556-67-2      |
| Tin, dibutylbis(2,4-pentanedionatokappa.O2,.kappa.O4)-, (OC-6-11)- | 0.1 - 1     | 22673-19-4    |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

Description of necessary first aid measures

| Eye contact  | : | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.  |
|--------------|---|---|
| Inhalation   | : | Remove victim to fresh air and keep at rest in a position comfortable<br>for breathing. If not breathing, if breathing is irregular or if<br>respiratory arrest occurs, provide artificial respiration or oxygen by<br>trained personnel. It may be dangerous to the person providing aid<br>to give mouth-to-mouth resuscitation. Get medical attention. If<br>unconscious, place in recovery position and get medical attention<br>immediately. Maintain an open airway. Loosen tight clothing such<br>as a collar, tie, belt or waistband. |
| Skin contact | : | Wash with plenty of soap and water. Remove contaminated clothing<br>and shoes. Wash contaminated clothing thoroughly with water<br>before removing it, or wear gloves. Continue to rinse for at least 10<br>minutes. Get medical attention. In the event of any complaints or<br>symptoms, avoid further exposure. Wash clothing before reuse.<br>Clean shoes thoroughly before reuse.  |

| Ingestion | : | Wash out mouth with water. Remove dentures if any. Remove<br>victim to fresh air and keep at rest in a position comfortable for<br>breathing. If material has been swallowed and the exposed person is<br>conscious, give small quantities of water to drink. Stop if the<br>exposed person feels sick as vomiting may be dangerous. Do not<br>induce vomiting unless directed to do so by medical personnel. If<br>vomiting occurs, the head should be kept low so that vomit does not<br>enter the lungs. Get medical attention. Never give anything by<br>mouth to an unconscious person. If unconscious, place in recovery<br>position and get medical attention immediately. Maintain an open |
|-----------|---|--|
|           |   | airway. Loosen tight clothing such as a collar, tie, belt or waistband.  |

#### Indication of immediate medical attention and special treatment needed, if necessary

| Notes to physician                | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
|-----------------------------------|---|--|
| Specific treatments               | : | No specific treatment.   |
| Protection of first aid personnel | : | No action shall be taken involving any personal risk or without<br>suitable training. If it is suspected that fumes are still present, the<br>rescuer should wear an appropriate mask or self-contained breathing<br>apparatus. It may be dangerous to the person providing aid to give<br>mouth-to-mouth resuscitation. Wash contaminated clothing<br>thoroughly with water before removing it, or wear gloves. |

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

#### Extinguishing media

| Suitable extinguishing media<br>Unsuitable extinguishing media | : | Use dry chemical, CO2, alcohol-resistant foam or water spray (fog). water jet  |
|--|---|--|
| Specific hazards arising from the chemical                     | : | No specific fire or explosion hazard.  |
| Hazardous thermal decomposition products                       | : | Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.  |
| Special protective actions for fire-<br>fighters               | : | Promptly isolate the scene by removing all persons from the vicinity<br>of the incident if there is a fire. No action shall be taken involving<br>any personal risk or without suitable training. Use water spray to<br>keep fire-exposed containers cool. Fire water contaminated with this<br>material must be contained and prevented from being discharged to<br>any waterway, sewer or drain. |
| Special protective equipment for<br>fire-fighters              | : | Fire-fighters should wear appropriate protective equipment and self-<br>contained breathing apparatus (SCBA) with a full face-piece<br>operated in positive pressure mode.Firefighters must wear<br>NIOSH/MSHA approved positive pressure self-contained breathing<br>apparatus with full face mask and full protective clothing.  |

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | : | No action shall be taken involving any personal risk or without |
|-----------------------------|---|---|
|                             |   | suitable training. Evacuate surrounding areas. Keep unnecessary |
|                             |   | and unprotected personnel from entering. Do not touch or walk   |

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| For emergency responders            | :    | through spilled material. Provide adequate ventilation. Wear<br>appropriate respirator when ventilation is inadequate. Put on<br>appropriate personal protective equipment.<br>If specialised clothing is required to deal with the spillage, take note<br>of any information in Section 8 on suitable and unsuitable materials.<br>See also the information in "For non-emergency personnel".   |
|-------------------------------------|------|--|
| Environmental precautions           | :    | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).  |
| Methods and material for containmen | t ar | d cleaning up  |
| Small spill                         | :    | Move containers from spill area. Vacuum or sweep up material and<br>place in a designated, labeled waste container. Dispose of via a<br>licensed waste disposal contractor. Note: see section 1 of SDS for<br>emergency contact information and section 13 of SDS for waste<br>disposal.   |
| Large spill                         | :    | Move containers from spill area. Approach release from upwind.<br>Prevent entry into sewers, water courses, basements or confined<br>areas. Vacuum or sweep up material and place in a designated,<br>labeled waste container. Dispose of via a licensed waste disposal<br>contractor. Note: see section 1 of SDS for emergency contact<br>information and section 13 of SDS for waste disposal. |

### Section 7. Handling and storage

#### **Precautions for safe handling**

| Protective measures   | : | Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. |
|---|---|---|
| Advice on general occupational<br>hygiene                       | : | Eating, drinking and smoking should be prohibited in areas where<br>this material is handled, stored and processed. Workers should wash<br>hands and face before eating, drinking and smoking. See also<br>Section 8 for additional information on hygiene measures.  |
| Conditions for safe storage,<br>including any incompatibilities | : | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.  |

### Section 8. Exposure controls/personal protection

#### **Control parameters**

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### **Occupational exposure limits**

| Ingredient name   | Exposure limits   |
|---|---|
| Octamethylcyclotetrasiloxane  | ()<br>Recommended exposure limit (REL): 5 ppm   |
| Appropriate engineering controls<br>Environmental exposure controls | <ul> <li>If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.</li> <li>Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers,</li> </ul>  |
|   | filters or engineering modifications to the process equipment will be<br>necessary to reduce emissions to acceptable levels.  |
| Individual protection measures                                      |   |
| Hygiene measures  | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.  |
| Eye/face protection   | : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.   |
| Skin protection   |   |
| Hand protection   | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.  |
| Body protection   | <ul> <li>Personal protective equipment for the body should be selected based<br/>on the task being performed and the risks involved and should be<br/>approved by a specialist before handling this product.</li> </ul>   |
| Other skin protection   | <ul> <li>Appropriate footwear and any additional skin protection measures<br/>should be selected based on the task being performed and the risks<br/>involved and should be approved by a specialist before handling this<br/>product.</li> </ul>   |
| Respiratory protection  | <ul> <li>Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. 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). Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.</li> </ul> |

### Section 9. Physical and chemical properties

#### **Appearance**

| Physical state<br>Color                    | :  | Solid<br>colorless.  |
|--|----|--|
| Odor<br>Odor threshold<br>pH               | :: | ammonia<br>Not available<br>Not applicable.                      |
| Melting point                              | :  | Not applicable.  |
| Boiling point                              | :  | Not applicable.  |
| Flash point                                | :  | (Not applicable.) Not applicable.                                |
| Burning time<br>Burning rate               | :  | Not available<br>Not available                                   |
| Evaporation rate                           | -  | Not available  |
| Flammability (solid, gas)                  | :  | Not available  |
| Lower and upper explosive                  | :  | Lower: Not applicable.   |
| (flammable) limits                         |    | Upper: Not applicable.   |
| Vapor pressure                             | :  | 1 hPa  |
| Vapor density                              | :  | Not available  |
| Relative density                           | :  | 1.03   |
| -  |    |  |
| Density                                    | :  | 1.035 g/cm3  |
| Solubility                                 | :  | Toluene  |
| Solubility in water                        | :  | Negligible   |
| Partition coefficient: n-<br>octanol/water | :  | Not available  |
| Auto-ignition temperature                  | :  | Not applicable.  |
| Decomposition temperature<br>SADT          | :  | Not available<br>Not available                                   |
| Viscosity                                  | :  | <b>Dynamic:</b> Not available<br><b>Kinematic:</b> Not available |
| Volatile organic content                   | :  | <b>Sinematic:</b> Not available 33 g/l                           |

#### Other information

No additional information.

### Section 10. Stability and reactivity

| Reactivity                         | : | Stable under normal conditions.   |  |
|------------------------------------|---|---|--|
| Chemical stability                 | : | The product is stable.  |  |
| Possibility of hazardous reactions | : | Under normal conditions of storage and use, hazardous reactions will not occur. |  |
| Conditions to avoid                | : | No specific data.   |  |

| Incompatible materials           | : | No specific data.  |
|----------------------------------|---|--|
| Hazardous decomposition products | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name     | Result             | Species      | Dose  | Exposure |
|-----------------------------|--------------------|--------------|---|----------|
| Octamethylcyclotetrasiloxar | ne                 |              |   |          |
|                             | LD50 Oral          | Rat          | 4,800 mg/kg<br>OECD-Guideline<br>401 (Acute Oral<br>Toxicity) | -        |
|                             | LC50<br>Inhalation | Rat          | > 12.1 mg/l   | 4 h      |
|                             | LC50<br>Inhalation | Rat          | 36 mg/l OECD<br>Test Guideline<br>403                         | 4 h      |
|                             | LD50 Dermal        | Rat          | > 2,400 mg/kg<br>OECD Test<br>Guideline 402                   | -        |
| Conclusion/Summary          | : No               | t determined |   | •        |

Not determined

#### **Irritation/Corrosion**

| Product/ingredient name      | Result                      | Species                     | Score | Exposure | Observation |  |  |
|------------------------------|-----------------------------|-----------------------------|-------|----------|-------------|--|--|
| Octamethylcyclotetrasiloxane | Skin                        | Rat                         |       |          | _           |  |  |
|                              | OECD-                       |                             |       |          |             |  |  |
|                              | Guideline                   |                             |       |          |             |  |  |
|                              | 404 (Acute                  |                             |       |          |             |  |  |
|                              | Dermal                      |                             |       |          |             |  |  |
|                              | Irritation/C                |                             |       |          |             |  |  |
|                              | orrosion)                   |                             |       |          |             |  |  |
| Remarks:                     | Non-irritating              | Non-irritating to the skin. |       |          |             |  |  |
|                              | eyes                        | Rabbit                      |       |          | -           |  |  |
|                              | OECD-                       |                             |       |          |             |  |  |
|                              | Guideline                   |                             |       |          |             |  |  |
|                              | 405 (Acute                  |                             |       |          |             |  |  |
|                              | Eye                         |                             |       |          |             |  |  |
|                              | Irritation/C                |                             |       |          |             |  |  |
|                              | orrosion)                   |                             |       |          |             |  |  |
| Remarks:                     | Non-irritating to the eyes. |                             |       |          |             |  |  |

**Conclusion/Summary** Skin

Not determined : Not determined :

Not determined :

#### **Sensitization**

Respiratory

eyes

| Product/ingredient name      | Route of exposure | Species    | Result                |
|------------------------------|-------------------|------------|-----------------------|
| Octamethylcyclotetrasiloxane | -                 | Guinea pig | Not sensitizing OECD- |
|                              |                   |            | Guideline 406 (Skin   |

|                           |                  | Sensitisation) |
|---------------------------|------------------|----------------|
| <b>Conclusion/Summary</b> |                  |                |
| Skin                      | : Not determined |                |
| Respiratory               | : Not determined |                |

#### **Mutagenicity**

| Product/ingredient name      | Test                        | Experiment | Result   |
|------------------------------|-----------------------------|------------|----------|
| Octamethylcyclotetrasiloxane | OECD-Guideline 471 (Genetic | In vitro   | Negative |
|                              | Toxicology: Salmonella      |            |          |
|                              | typhimurium, Reverse        |            |          |
|                              | Mutation Assay)             |            |          |
|                              | Mouse Lymphoma Assay        | In vitro   | Negative |
|                              | (OECD Guidline 476)         |            |          |
|                              | OECD-Guideline 474 (Genetic | In vivo    | Negative |
|                              | Toxicology: Micronucleus    |            | _        |
|                              | Test)                       |            |          |
| Conclusion/Summary           | : Not determined            |            |          |

#### **Carcinogenicity**

| Product/ingredient name      | Result       | Species      | Dose       | Exposure  |
|------------------------------|--------------|--------------|------------|-----------|
| Octamethylcyclotetrasiloxane | Inhalation - | Rat - Female | 150 mg/kg  | 24 months |
|                              | OECD 453     |              |            |           |
| Remarks:                     | NOAEC        |              |            |           |
|                              | Inhalation - | Rat - Male   | >700 mg/kg | 24 months |
|                              | OECD 453     |              |            |           |
| Remarks:                     | NOAEC        |              |            |           |

**Conclusion/Summary** 

: Not determined

#### **Reproductive toxicity**

| Product/ingredient name          | Maternal<br>toxicity | Fertility | Development toxin | Species | Dose                                 | Exposure |
|----------------------------------|----------------------|-----------|-------------------|---------|--------------------------------------|----------|
| Octamethylcyclotetrasi<br>loxane | -                    | -         | -                 | Rat     | Inhalation:<br>300 mg/kg<br>OECD 416 | -        |
| Remarks:                         | NOAEL parents        |           |                   |         |                                      |          |
|                                  | -                    | -         | -                 | Rat     | Inhalation:<br>300 mg/kg<br>OECD 416 | -        |
| Remarks:                         | NOAEL F1             |           |                   |         |                                      |          |

Conclusion/Summary

: Not determined

#### **Teratogenicity**

| Result          | Species   | Dose  | Exposure  |  |  |  |
|-----------------|---|---|---|--|--|--|
| - Inhalation    | Rabbit  | 500 mg/kg   | 18 days   |  |  |  |
| OECD Test       |   |   |   |  |  |  |
| Guideline 414   |   |   |   |  |  |  |
| NOAEL           |   |   |   |  |  |  |
| - Inhalation    | Rabbit  | 300 mg/kg   | 18 days   |  |  |  |
| OECD Test       |   |   | -   |  |  |  |
| Guideline 414   |   |   |   |  |  |  |
| NOAEL maternity |   |   |   |  |  |  |
|                 | <ul> <li>Inhalation</li> <li>OECD Test</li> <li>Guideline 414</li> <li>NOAEL</li> <li>Inhalation</li> <li>OECD Test</li> <li>Guideline 414</li> <li>NOAEL matern</li> </ul> | - Inhalation Rabbit<br>OECD Test<br>Guideline 414<br>NOAEL<br>- Inhalation Rabbit<br>OECD Test<br>Guideline 414 | - Inhalation<br>OECD Test<br>Guideline 414Rabbit500 mg/kgNOAEL Inhalation<br>OECD Test<br>Guideline 414Rabbit300 mg/kgOECD Test<br>Guideline 414NOAEL |  |  |  |

#### **Conclusion/Summary**

: Not determined

| <u>single exposure)</u> |                   |               |  |
|-------------------------|-------------------|---------------|--|
| Category                | Route of exposure | Target organs |  |
| ;                       | <i><b>a</b></i>   |               |  |

| Tin, dibutylbis(2,4-          | Category 1 | thymus |
|-------------------------------|------------|--------|
| pentanedionato-               |            |        |
| .kappa.O2,.kappa.O4)-, (OC-6- |            |        |
| 11)-                          |            |        |

#### Specific target organ toxicity (repeated exposure)

| Speeme en ger of guit coment, (re | seared en pobal e/ |                   |               |
|-----------------------------------|--------------------|-------------------|---------------|
| Product/ingredient name           | Category           | Route of exposure | Target organs |
| Tin, dibutylbis(2,4-              | Category 1         |                   | thymus        |
| pentanedionato-                   |                    |                   |               |
| .kappa.O2,.kappa.O4)-, (OC-6-     |                    |                   |               |
| 11)-                              |                    |                   |               |

| Aspiration hazard<br>Not available                     |     |   |
|--|-----|---|
| Information on the likely routes of exposure           | :   | Not available   |
| Potential acute health effects                         |     |   |
| Eye contact<br>Inhalation<br>Skin contact<br>Ingestion | ::  | No known significant effects or critical hazards.<br>No known significant effects or critical hazards.<br>May cause an allergic skin reaction.<br>No known significant effects or critical hazards. |
| Symptoms related to the physical, ch                   | nem | ical and toxicological characteristics  |
| Eye contact  | :   | No specific data.   |
| Inhalation   | :   | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations   |
| Skin contact   | :   | Adverse symptoms may include the following:<br>irritation<br>redness<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations  |
| Ingestion  | :   | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations   |

#### Delayed and immediate effects and also chronic effects from short and long term exposure

|  | Short | term | exposure |  |
|--|-------|------|----------|--|
|--|-------|------|----------|--|

| Potential immediate effects<br>Potential delayed effects | : | Not available<br>Not available |
|--|---|--------------------------------|
| Long term exposure                                       |   |                                |
| Potential immediate effects<br>Potential delayed effects | : | Not available<br>Not available |

#### **Potential chronic health effects**

| Product/ingredient name    | Result     | Species | Dose      | Exposure  |
|----------------------------|------------|---------|-----------|-----------|
| Octamethylcyclotetrasiloxa | NOAEC      | Rat     | 150 mg/kg | 24 months |
| ne                         | Inhalation |         | OECD 453  |           |

| Remarks:                        | NOAEC  |                     |   |  |               |
|---------------------------------|--------|---------------------|---|--|---------------|
|                                 | NOAEL  |                     | Rabbit  | > 1 mg/kg  | 3 weeks       |
|                                 | Dermal |                     |   | OECD 410   |               |
| Remarks:                        | NOAEL  |                     |   |  |               |
| Conclusion/Summary              | :      | Not                 | determined  |  |               |
| General                         | :      |                     | e sensitized, a seve<br>sequently exposed                 | ere allergic reaction ma                               | ay occur when |
|                                 |        | subs                | equently exposed  | to very low levels.                                    |               |
| Carcinogenicity                 | :      |                     | 1 1 1   | effects or critical haza                               | rds.          |
| Carcinogenicity<br>Mutagenicity | :      | No l                | known significant   | •  |               |
| <b>e</b> .                      | •      | No l<br>No l        | known significant   | effects or critical hazar<br>effects or critical hazar |               |
| Mutagenicity                    | •      | No l<br>No l<br>May | known significant<br>known significant<br>damage the unbo | effects or critical hazar<br>effects or critical hazar | rds.          |

#### Numerical measures of toxicity

#### Acute toxicity estimates

| Route | ATE value      |
|-------|----------------|
| Oral  | 32,482.3 mg/kg |

#### **Other information**

Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/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. This response in rats, which does not affect the animal's health, is well-documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. 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 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. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

### Section 12. Ecological information

#### **Ecotoxicity**

**Conclusion/Summary** 

: Not available

Persistence/degradability

| Product/ingredient<br>name       | Test  | Result       | Dose | Inoculum         |
|----------------------------------|---|--------------|------|------------------|
| octamethylcyclotetrasil<br>oxane | 310 Ready<br>Biodegradability<br>- CO <sub>2</sub> in Sealed<br>Vessels<br>(Headspace Test) | 3.7 % - 29 d |      | Activated sludge |
| Remarks:                         | Not readily biodegr   | adable.      |      |                  |

**Conclusion/Summary** 

: Not available

#### **Bioaccumulative potential**

| Product/ingredient name      | Species | Exposure | LogPow | BCF   | Potential |
|------------------------------|---------|----------|--------|-------|-----------|
| Octamethylcyclotetrasiloxane | Fathead | 28 d     |        | 12.40 | low       |
|                              | minnow  |          |        |       |           |

#### Mobility in soil

| Soil/water partition coefficient | : | Not available                                     |
|----------------------------------|---|---|
| (KOC)<br>Other adverse effects   | : | No known significant effects or critical hazards. |

#### **Other information**

Octamethylcyclotetrasiloxane (D4) meets the current REACh Annex XIII criteria for PBT and vPvB. However, D4 does not behave similarly to known PBT/vPvB substances. The silicones industries interpretation of the available data is that the weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

### Section 13. Disposal considerations

:

**Disposal methods** 

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. See Section 8 for information on appropriate personal protective equipment.

### **Section 14. Transport information**

Version: 1.4

| 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       |   |  |  |  |  |  |  |
| United States                   |   |  |  |  |  |  |  |
| U.S. Federal regulations        | <ul> <li>United States - TSCA 12(b) - Chemical export notification: The following components are listed: Cyclotetrasiloxane, 2,2,4,4,6,6,8,8-octamethyl-</li> <li>United States - TSCA 5(a)2 - Final significant new use rules: Not listed</li> <li>United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed</li> <li>United States - TSCA 5(a) - Substances consent order: Not listed</li> </ul>  |  |  |  |  |  |  |
| SARA 311/312                    |   |  |  |  |  |  |  |
| Classification                  | : Immediate (acute) health hazard<br>Delayed (chronic) health hazard  |  |  |  |  |  |  |
| <u>California Prop. 65:</u>     | : None required.  |  |  |  |  |  |  |
| <u>Canada</u><br>WHMIS (Canada) | : Class D-2A: Material causing other toxic effects (Very toxic).  |  |  |  |  |  |  |
| International regulations       | Class D-2B: Material causing other toxic effects (Toxic).   |  |  |  |  |  |  |
| International regulations       |   |  |  |  |  |  |  |
|                                 | Australia inventory (AICS): All components are listed or exempted.<br>Canada inventory: All components are listed or exempted.<br>Japan inventory: Not determined.<br>China inventory (IECSC): All components are listed or exempted.<br>Korea inventory: All components are listed or exempted.<br>New Zealand Inventory (NZIoC): All components are listed or exempted.<br>United States inventory (TSCA 8b): All components are listed or exempted.<br>Philippines inventory (PICCS): All components are listed or exempted.<br>Taiwan inventory (CSNN): Not determined. |  |  |  |  |  |  |

### Section 16. Other information

| Label requirements                                   | : | May cause an allergic skin reaction. May damage fertility or the unborn child. |  |  |  |  |
|--|---|--|--|--|--|--|
| Hazardous Material Information System III (U.S.A.) : |   |  |  |  |  |  |

| Huzur dous Muteriur Hitorination System Hit (0.54X) |  |   |
|---|--|---|
| Health  |  | 1 |
| Flammability  |  | 1 |
| Physical hazards                                    |  | 0 |
|   |  |   |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a

fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

| Full text of abbreviated H statements  | : | Not applicable.   |
|--|---|---|
| <u>History</u>   |   |   |
| Date of printing<br>Date of issue/Date of revision<br>Date of previous issue<br>Version<br>Prepared by<br>Key to abbreviations |   | 02/02/2016<br>02/02/2016<br>1.4<br>Product Safety Stewardship<br>ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Internediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL 73/78 = International Convention for the Prevention of Pollution From<br>Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>RID = The Regulations concerning the International Carriage of Dangerous Goods<br>by Rail<br>UN = United Nations |
| References   | : | Not available   |

#### Notice to reader

Unless otherwise specified in section 1, Momentive Products are intended for industrial application only. They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable 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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