

**SYLGARD(R) 184 SILICONE ELASTOMER CURING AGENT (CURING AGENT  
information is below)****1. PRODUCT AND COMPANY IDENTIFICATION**

MSDS No.: 01015311

**SUPPLIER:**Dow Corning Canada Inc.  
15-6400 Millcreek Drive, Suite 416  
Mississauga, ON, Canada L5N 3E7

Prepared by Product Safety: (800) 248-2481

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**MANUFACTURER:**Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900

**WHMIS CLASSIFICATION:** Class B, Division 6.  
Class D, Division 1, Subdivision B.  
Class D, Division 2, Subdivision A.**Material Usage:** Silicone rubber curing agent**2. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW****Generic Description:** Silicone resin solution.**Physical Form:** Liquid**Colour:** Colorless**Odour:** Very little

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**POTENTIAL HEALTH EFFECTS**Acute Effects

**Eye:** Direct contact may cause temporary redness and discomfort.

**Skin:** No significant irritation expected from a single short-term exposure.

**Inhalation:** No significant effects expected from a single short-term exposure.

**Oral:** Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

**SYLGARD(R) 184 SILICONE ELASTOMER CURING AGENT (CURING AGENT information is below)**

Skin: No known applicable information.

Inhalation: No known applicable information.

Oral: No known applicable information.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
68037-59-2	40.0 - 70.0	Dimethyl, methylhydrogen siloxane
556-67-2	0.5 - 1.5	Octamethylcyclotetrasiloxane
1330-20-7	0.1 - 1.0	Xylene

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555.

**4. FIRST AID MEASURES**

Eye: Immediately flush with water.

Skin: No first aid should be needed.

Inhalation: No first aid should be needed.

Oral: No first aid should be needed.

Notes to Physician: Treat according to person's condition and specifics of exposure.

**5. FIRE FIGHTING MEASURES**

Flash Point: &gt; 214 °F / &gt; 101.1 °C (Closed Cup)

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Autoignition Temperature:	Not available.
Flammability Limits in Air:	Not available.
Extinguishing Media:	On large fires use AFFF alcohol compatible foam or water spray (fog). On small fires use AFFF alcohol compatible foam, CO2 or water spray (fog). Water can be used to cool fire exposed containers. Do not allow extinguishing medium to contact container contents. Most fire extinguishing media will cause hydrogen evolution. When the fire is put out, hydrogen may accumulate in poorly ventilated or confined areas and result in flash fire or explosion if ignited. Foam blankets may also trap hydrogen or flammable vapors, with the possibility of subsurface explosion.
Unsuitable Extinguishing Media:	Dry chemical.
Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Determine the need to evacuate or isolate the area according to your local emergency plan.
Unusual Fire Hazards:	None.

**6. ACCIDENTAL RELEASE MEASURES**

Containment/Clean up:	Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas. Recovered material should be stored in a vented container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases.
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Note: See section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

**7. HANDLING AND STORAGE**

Use with adequate ventilation. Avoid eye contact.

Product evolves minute quantities of flammable hydrogen gas which can accumulate. Adequately ventilate to maintain vapors well below flammability limits and exposure guidelines. Do not repackage. Do not store in glass containers which may shatter due to pressure build up. Clogged container vents may increase pressure build up. Keep container closed and store away from water or moisture.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Component Exposure Limits**

Consult local authorities for acceptable provincial values.

<u>CAS Number</u>	<u>Component Name</u>	<u>Exposure Limits</u>
556-67-2	Octamethylcyclotetrasiloxane	Dow Corning guide: TWA 10 ppm. LC50: 36 mg/L - Inhalation Rat ; 4hr vapor LD50: > 5,000 mg/kg - Oral Rat LD50: > 4,640 mg/kg - Dermal Rabbit
1330-20-7	Xylene	Observe xylene limits. OSHA PEL (final rule) and ACGIH TLV: TWA 100 ppm, STEL 150 ppm. LC50: 6350 PPM - Inhalation Rat ; 4hr vapor LD50: 4,300 mg/kg - Oral Rat

**Engineering Controls**

Local Ventilation: Recommended.  
General Ventilation: Recommended.

**Personal Protective Equipment for Routine Handling**

Eyes: Use proper protection - safety glasses as a minimum.  
Skin: Washing at mealtime and end of shift is adequate.  
Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices.  
Inhalation: No respiratory protection should be needed.  
Suitable Respirator: None should be needed.

**Personal Protective Equipment for Spills**

Eyes: Use proper protection - safety glasses as a minimum.  
Skin: Washing at mealtime and end of shift is adequate.

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Inhalation/Suitable Respirator: No respiratory protection should be needed.

Precautionary Measures: Avoid eye contact. Use reasonable care.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)) or contact the Dow Corning customer service group.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical Form: Liquid  
 Color: Colorless  
 Odor: Very little  
 Odor Threshold: Not available.  
 Specific Gravity @ 25°C: 1.03  
 Viscosity: 110 cSt  
 Freezing/Melting Point: Not available.  
 Boiling Point: > 100 °C  
 Vapor Pressure @ 25°C: Not available.  
 Vapor Density: Not available.  
 Evaporation Rate: Not available.  
 Solubility in Water: Not available.  
 Coefficient of Water/Oil: Not available.  
 Distribution:  
 pH: Not available.  
 Volatile Content: Not available.

Flash Point: > 214 °F / > 101.1 °C (Closed Cup)  
 Autoignition Temperature: Not available.  
 Flammability Limits in Air: Not available.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

**10. STABILITY AND REACTIVITY**

Chemical Stability: Stable.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction. Water, alcohols, acidic or basic materials, and many metals or metallic compounds, when in contact with product, liberate flammable hydrogen gas, which can form explosive mixtures in air.

**SYLGARD(R) 184 SILICONE ELASTOMER CURING AGENT (CURING AGENT  
information is below)**Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Hydrogen. Formaldehyde.

**11. TOXICOLOGICAL INFORMATION**Component Toxicology Information

Recent results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. These effects, which have been shown to be rat-specific, occur at the highest exposure dose (700 ppm) only, a level that greatly exceeds typical workplace or consumer exposures. Industrial, commercial, or consumer uses of products containing D4 do not represent a risk to humans.

Octamethylcyclotetrasiloxane administered to rats by inhalation at concentrations of 500 and 700 ppm resulted in statistically significant decreases in the number of pups born and the live litter size in both the first and second generations. Prolonged estrous cycles, and decreased mating and fertility indices were observed following 700 ppm exposure in the second generation only. There were also increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia). Subsequent mode of action work demonstrated the effect on reproduction in female rats is due to delayed ovulation caused by a treatment-related delay in or blockage of the luteinizing hormone (LH) surge on the day of proestrus. This mode of action is not considered relevant to humans.

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Special Hazard Information on Components**Teratogens**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>	
1330-20-7	0.1 - 1.0	Xylene	Evidence of teratogenicity (birth defects)

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in laboratory animals.

**Reproductive Effects**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>	
556-67-2	0.5 - 1.5	Octamethylcyclotetrasiloxane	Evidence of reproductive effects in laboratory animals.

**12. ECOLOGICAL INFORMATION****Environmental Fate and Distribution**

Complete information is not yet available.

**Environmental Effects**

Complete information is not yet available.

**Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

## Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

**13. DISPOSAL CONSIDERATIONS**

Can be incinerated in accordance with local regulations.

Call local hazardous waste disposal company or provincial waste authorities for more information.

**14. TRANSPORT INFORMATION****Canada Road (Based on IMDG Regulations)**

Not subject to local road regulations.

**Ocean Shipment (IMDG)**

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Not subject to IMDG code.

**Air Shipment (IATA)**

Not subject to IATA regulations.

Remarks:                    VENTED PACKAGES ARE FORBIDDEN FOR AIR TRANSPORT.

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

**15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

WHMIS                            Class B, Division 6.  
CLASSIFICATION:            Class D, Division 1, Subdivision B.  
   Class D, Division 2, Subdivision A.

DSL STATUS:                    All chemical substances in this material are included on or exempted from the DSL.

**16. OTHER INFORMATION**

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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