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# Material Safety Data Sheet

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Product Name: **ClearGard Liquid**  
Product Part Number: **6003-x**

## Chemical Ingredient No. 1

Common Name: .....Silicone  
Chemical Name: .....Silicone  
Chemical Formula: .....N/A  
Percent of Mixture (by volume): .....100%  
Manufacturer: .....Dow Corning Corp.  
MSDS: .....Attached

The information herein is provided in good faith, but no warranty, either expressed or implied, is made by King Engineering.

# DOW CORNING CORPORATION

## Material Safety Data Sheet

Page: 1 of 8

Version: 1.5

Revision Date: 2005/01/03

### DOW CORNING(R) 556 COSMETIC GRADE FLUID

#### 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

**24 Hour Emergency Telephone: (989) 496-5900**  
Customer Service: (989) 496-6000  
Product Disposal Information: (989) 496-6315  
CHEMTREC: (800) 424-9300

MSDS No.: 01010476

Revision Date: 2005/01/03

Generic Description: Silicone resin.  
Physical Form: Liquid  
Color: Colorless  
Odor: Odorless

NFPA Profile: Health 3 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

#### 2. OSHA HAZARDOUS COMPONENTS

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
73559-47-4	> 60.0	Trimethyl phenyl silsesquioxane

The above components are hazardous as defined in 29 CFR 1910.1200.

#### 3. HAZARDS IDENTIFICATION

##### 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: Mist may seriously irritate nose, throat, and lungs depending on concentration and duration of exposure. Aerosol mist highly toxic by inhalation. Mist may cause chemical pneumonia characterized by swelling and inflammation of the lungs.

Oral: Low ingestion hazard in normal use.

##### Prolonged/Repeated Exposure Effects

Skin: No known applicable information.

Inhalation: No known applicable information.

Oral: No known applicable information.

**DOW CORNING(R) 556 COSMETIC GRADE FLUID**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.

**4. FIRST AID MEASURES**

Eye:	Immediately flush with water.
Skin:	No first aid should be needed.
Inhalation:	Remove to fresh air. Get immediate medical attention.
Oral:	No first aid should be needed.
Comments:	Treat according to person's condition and specifics of exposure.

**5. FIRE FIGHTING MEASURES**

Flash Point:	> 213.8 °F / > 101 °C (Closed Cup)
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	Not determined.
Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO <sub>2</sub> ), dry chemical or water spray. Water can be used to cool fire exposed containers.
Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards:	None.

Hazardous Decomposition Products

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

**6. ACCIDENTAL RELEASE MEASURES**

# DOW CORNING CORPORATION

## Material Safety Data Sheet

Page: 3 of 8

Version: 1.5

Revision Date: 2005/01/03

### DOW CORNING(R) 556 COSMETIC GRADE FLUID

**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. 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, state and 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. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

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. Traces of benzene (carcinogen) may form if heated in air above 300 F (149 C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements. Avoid eye contact. Do not breathe mist. Keep container closed.

Use reasonable care and store away from oxidizing materials.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

##### Component Exposure Limits

<u>CAS Number</u>	<u>Component Name</u>	<u>Exposure Limits</u>
73559-47-4	Trimethyl phenyl silsesquioxane	None established.

##### 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: No special protection needed.

**DOW CORNING(R) 556 COSMETIC GRADE FLUID**

**Inhalation:** Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.

**Suitable Respirator:** General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

**Personal Protective Equipment for Spills**

**Eyes:** Use chemical worker's goggles. When there may be the potential for airborne misting or aerosolization may occur, use as a minimum a full face air purifying respirator equipped with dust-mist cartridges.

**Skin:** Washing at mealtime and end of shift is adequate.

**Inhalation/Suitable Respirator:** Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**Precautionary Measures:** Avoid eye contact. Do not breathe mist. Keep container closed. Use reasonable care.

**Comments:** Traces of benzene (carcinogen) may form if heated in air above 300 F (149 C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements.

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: Odorless

Specific Gravity @ 25°C: 0.98

Viscosity: 20 cSt

Freezing/Melting Point: Not determined.

Boiling Point: > 65 °C

Vapor Pressure @ 25°C: Not determined.

Vapor Density: Not determined.

Solubility in Water: Not determined.

pH: Not determined.

**DOW CORNING(R) 556 COSMETIC GRADE FLUID**

Volatile Content: Not determined.

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.

**11. TOXICOLOGICAL INFORMATION****Acute Toxicology Data for Product**

	<u>Species</u>	<u>Test Results</u>	<u>Type of Test</u>
Eye Irritation:	Rabbit	Non-irritating	
Skin Irritation:	Rabbit	Non-irritating	
Dermal LD50:	Rabbit	> 2,000 mg/kg	
Inhalation LC50:	Rat	0.47 mg/L	Aerosol.
Sensitization:	Guinea Pig	Negative	Maximization
Mutagenicity:	In Vitro	Negative	Ames
	In Vitro	Negative	Mouse Lymphoma

**Component Toxicology Information**

A test substance (Phenyl,Silsesquioxanes) was aerosolized and administered for 4 hours by whole body inhalation to 2 groups of five male and five female Sprague-Dawley rats at gravimetrically determined exposure levels of 5.33 mg/L (MMAD 2.1 mm) and 0.47 mg/L (MMAD 1.9 mm). Dosing was followed by a 14-day observation period and gross necropsy after sacrifice of surviving animals. The respiratory tracts were preserved and evaluated microscopically for animals exposed at a measured concentration of approximately 0.5 mg/L. All animals exposed to the gravimetric concentration of 5.33 mg/L died. Five animals (1 male/4 females) exposed to the gravimetric concentration of 0.47 mg/L died within the first day of the observation period. No other animals in this group died during the observation period. Clinical signs noted in the animals surviving the 0.47 mg/L exposure include lacrimation, nasal discharge (clear or red), excessive salivation, labored breathing, moist rales, decreased activity, and irregular gait. Macroscopic findings seen during necropsy of the the 5.33 mg/L exposure group included redness and red fluid in all lobes of the lungs. Clinical signs noted in a majority of the animals immediately following the 0.47 mg/L exposure included labored breathing and/or moist rales. In the surviving animals, labored breathing and rales were no longer apparent five days after the acute exposure. In addition, all animals gained weight following the exposure. At necropsy of the 0.47 mg/L exposure group, macroscopic findings observed included redness in all lobes of the lungs, fluid in the lungs, clear fluid in the thoracic cavity and red

**DOW CORNING(R) 556 COSMETIC GRADE FLUID**

frothy fluid in the trachea. Microscopic findings considered to be test-substance related were present only in the lungs of the rats found dead on the day after exposure. The findings were edema and inflammation characterized by perivascular, interstitial and alveolar neutrophilic infiltrates; the severity of both findings was slight to moderate. Aspiration or inhalation of oily or fatty-type materials, such as the test substance, into the alveolar region of the lung can cause chemical pneumonitis.

**Special Hazard Information on Components**

No known applicable information.

**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****RCRA Hazard Class (40 CFR 261)**

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal.

Call (989) 496-6315, if additional information is required.

**14. TRANSPORT INFORMATION****DOT Road Shipment Information (49 CFR 172.101)**

Not subject to DOT.

**DOW CORNING(R) 556 COSMETIC GRADE FLUID****Ocean Shipment (IMDG)**

Not subject to IMDG code.

**Air Shipment (IATA)**

Not subject to IATA regulations.

**15. REGULATORY INFORMATION**

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**EPA SARA Title III Chemical Listings****Section 302 Extremely Hazardous Substances (40 CFR 355):**

None.

**Section 304 CERCLA Hazardous Substances (40 CFR 302):**

None.

**Section 311/312 Hazard Class (40 CFR 370):**Acute: Yes  
Chronic: No  
Fire: No  
Pressure: No  
Reactive: No**Section 313 Toxic Chemicals (40 CFR 372):**

None present or none present in regulated quantities.

**Supplemental State Compliance Information****California**

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.

**Massachusetts**

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

**New Jersey**



**DOW CORNING(R) 556 COSMETIC GRADE FLUID**

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**Pennsylvania**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
73559-47-4	> 60.0	Trimethyl phenyl silsesquioxane

**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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