

# SAFETY DATA SHEET

According to Regulation 2024 OSHA Hazard Communication Standard: 29 CFR 1910.1200

## 1. Identification of the substance or mixture and of the supplier

### 1.1 Product identifier:

**Product name:** BLUESIL V-612 A

**Product No.:** PRCO90054260

### 1.2 Relevant identified uses of the substance or mixture and uses advised against:

**Identified uses:** Used for making joints, sealing and gluing.

**Uses advised against:** None known.

### 1.3 Details of the supplier of the safety data sheet:

#### **Manufacturer:**

Elkem Silicones USA Corp.  
7979 Park Place Road  
29745 York, SC  
USA

**Telephone:** +1 (803) 792-3000

**Fax:** +1 (803) 684-7202

**E-mail:** product.stewardship@elkem.com

#### **Supplier:**

Elkem Silicones USA Corp.  
Two Tower Blvd, Suite 1802  
08816-1100 East Brunswick, NJ  
USA

**Telephone:** +1 (732) 227-2060

**Fax:** +1 (732) 249-7000

### 1.4 Emergency telephone number:

+1 (800) 424-9300 CHEMTREC

## 2. Hazard identification

### 2.1 Classification of the substance or mixture:

The product has been classified according to the legislation in force.

#### **Hazard Classification:**

##### **Health Hazards:**

Carcinogenicity	Category 1A	H350: May cause cancer.
Toxic to reproduction	Category 2	H361f: Suspected of damaging fertility.
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372: Causes damage to organs through prolonged or repeated exposure.

### 2.2 Label Elements:

#### **Hazard pictograms:**



#### **Signal Word:**

Warning

**Hazard statements:** H361f: Suspected of damaging fertility.

**Precautionary Statements:**

**Prevention:** P281: Use personal protective equipment as required.

**Response:** P308+P313: IF exposed or concerned: Get medical advice/attention.

### 2.3 Other hazards which do not result in GHS classification:

No other information noted.

## 3. Composition/information on ingredients

### Mixtures:

#### **General information:**

Mixture of Polyorganosiloxanes, fillers, additives.

#### **Hazardous Component(s):**

Chemical name	Concentration *	Type	CAS number	Classification
(1) Quartz	10 - <30%	Component	14808-60-7	Carc. 1A H350i; STOT RE 1 H372;
(1) Silicon dioxide	1 - <5%	Component	112945-52-5	None known.
Octamethylcyclotetrasiloxane	0.25 - <1%	Impurities	556-67-2	Flam. Liq. 3 H226; Repr. 2 H361; Aquatic Chronic 1 H410;  Aquatic Toxicity (Chronic): M = 10

(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.

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all H-statements is displayed in section 16.

## 4. First-aid measures

### **General information:**

For further information refer to section 8 "Exposure-controls/personal protection".

#### **4.1 Description of first aid measures:**

##### **Inhalation:**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Get medical attention if symptoms occur.

##### **Skin Contact:**

Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.

##### **Eye Contact:**

In the event of contact with the eyes, rinse thoroughly with clean water for at least 15 minutes. Get medical attention if symptoms occur.

##### **Ingestion:**

Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.

**Personal Protection for First-aid Responders:**

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). Refer to sections 5 and 8 for information on emergency procedures and protective equipment.

**4.2 Most important symptoms and effects, both acute and delayed:**

Any important symptoms and effects are described in Section 11 (Toxicological information) of this SDS.

**4.3 Indication of any immediate medical attention and special treatment needed:**

**Notes to the physician:**

No specific recommendations. Show this Safety Data Sheet to the attending physician.

## 5. Fire-fighting measures

**5.1 Extinguishing media:**

**Suitable extinguishing media:**

Water spray, foam, dry powder or carbon dioxide.

**Unsuitable extinguishing media:**

Avoid water in straight hose stream; will scatter and spread fire.

**5.2 Special hazards arising from the substance or mixture:**

Product will burn under fire conditions. Thermal decomposition or combustion may liberate carbon oxides, silicon oxides and other toxic gases or vapors.

**5.3 Advice for firefighters:**

**Special fire-fighting procedures:**

Use standard firefighting procedures and consider the hazards of other involved materials. Remove undamaged containers from fire area if it is safe to do so. Evacuate to a safe location and contact the emergency services. Water spray should be used to cool containers.

**Special protective equipment for fire-fighters:**

Firefighters should wear standard protective equipment and a positive pressure self-contained breathing apparatus (SCBA).

## 6. Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:**

Follow safe handling advice and personal protective equipment recommendations. Caution: Contaminated surfaces may be slippery.

**6.2 Environmental precautions:**

Do not release into the environment. Do not discharge into drains, water courses or onto the ground.

**6.3 Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent and place into containers.

**6.4 Reference to other sections:**

Please observe the important information mentioned in the other sections. In particular, information on exposure controls/personal protection and disposal considerations can be found under sections 8 and 13.

## 7. Handling and storage

## 7.1 Precautions for safe handling:

### Precautions:

No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product. In case of spills, beware of slippery floors and surfaces.

### Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 7.2 Conditions for safe storage, including any incompatibilities:

Store in accordance with local/regional/national regulations. Store in a well-ventilated place. Keep container tightly closed. Keep in properly labelled containers.

### Packaging frequently used at our sites:

Polyethylene. Plastic lined steel drum.

## 7.3 Specific end use(s):

See the technical data sheet on this product for further information.

# 8. Exposure controls/personal protection

## 8.1 Control Parameters:

### Occupational Exposure Limits:

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material.

#### Quartz

Type	Exposure Limit Values	Source	Date	Remarks
IDLH	- 50 mg/m <sup>3</sup>	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria
REL	- 0.05 mg/m <sup>3</sup>	NIOSH	2005	Respirable dust.
TWA	- 0.1 mg/m <sup>3</sup>	OSHA Z1A	1989	Respirable dust.
TWA	- 2.4 millions of particles per cubic foot of air	Z3	2000	The exposure limit is calculated from the equation, 250/(%SiO <sub>2</sub> +5), using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits. Respirable.
TWA	- 0.1 mg/m <sup>3</sup>	Z3	2000	The exposure limit is calculated from the equation, 10/(%SiO <sub>2</sub> +2), using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits. Respirable.
PEL	- 0.05 mg/m <sup>3</sup>	OSHA Z1	03 2016	Respirable dust.
REF	- -	OSHA	03 2016	29 CFR 1910.1053 Respirable dust.
TWA	- 0.05 mg/m <sup>3</sup>	OSHA	03 2016	Respirable dust.
OSHA_ACT	- 0.025 mg/m <sup>3</sup>	OSHA	03 2016	Respirable dust.
TWA	- 0.025 mg/m <sup>3</sup>	ACGIH	01 2022	Respirable fraction.

#### Silicon dioxide

Type	Exposure Limit Values	Source	Date	Remarks
IDLH	- 3,000 mg/m <sup>3</sup>	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria
TWA	- 10 mg/m <sup>3</sup>	ACGIH	01 2021	Inhalable particles.
TWA	- 5 mg/m <sup>3</sup>	OSHA Z1A	1989	Respirable fraction.
TWA	- 5 mg/m <sup>3</sup>	Z3	09 2016	Respirable fraction.
TWA	- 15 mg/m <sup>3</sup>	Z3	09 2016	Total dust.
TWA	- 15 millions of	Z3	09 2016	Respirable fraction.

		particles per cubic foot of air			
TWA	-	15 mg/m <sup>3</sup>	OSHA Z1A	1989	Total dust.
TWA	-	50 millions of particles per cubic foot of air	Z3	09 2016	Total dust.
TWA	-	3 mg/m <sup>3</sup>	ACGIH	01 2021	Respirable particles.
REL	-	6 mg/m <sup>3</sup>	NIOSH	2005	
TWA	-	20 millions of particles per cubic foot of air	Z3	2000	
TWA	-	0.8 mg/m <sup>3</sup>	Z3	2000	The exposure limit is calculated from the equation, 80/(%SiO <sub>2</sub> ), using a value of 100% SiO <sub>2</sub> . Lower values of % SiO <sub>2</sub> will give higher exposure limits.

***Octamethylcyclotetrasiloxane***

Type	Exposure Limit Values	Source	Date	Remarks
TWA	10 ppm -	WEEL	2020	

**Additional exposure limits under the conditions of use:**

**8.2 Exposure controls:**

**Appropriate Engineering Controls:**

Use engineering controls to reduce air contamination to permissible exposure level. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment:**

Provide sufficient ventilation during operations which cause vapor formation. Personal protective equipment should be chosen according to applicable standards, adapted to the conditions of use of the product and in discussion with the supplier of the personal protective equipment.

**Eye/face protection:**

Safety glasses with side shields

**Hand Protection:**

Protective gloves are recommended.

**Skin and Body Protection:**

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Respiratory Protection:**

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

**Environmental Controls:**

See sections 7 and 13 of the Safety Data Sheet.

**9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties:**

**Appearance:**

**Physical state:**

Liquid

**Form:**

Viscous

**Color:**

Colorless

**Odor:**

Odorless

**pH:**

By definition, pH measurement consists in the determination of hydrogen ions concentration in solution,

**Melting point/freezing point:**

**Boiling Point:**

**Flash Point:**

**Flammability:**

**Flammability Limit - Upper (%):**

**Flammability Limit - Lower (%):**

**Vapor pressure:**

**Relative vapor density:**

**Evaporation Rate:**

**Density:**

**Solubility(ies):**

**Solubility in Water:**

**Solubility (other):**

**Partition coefficient (n-octanol/water):**

**Self-ignition:**

**Decomposition Temperature:**

**Kinematic viscosity:**

generally aqueous. Silicones products are hydrophobic and therefore, not soluble in water. By consequence, it is not possible to measure the pH value.

No data available.

No data available.

> 204 °C / > 399 °F (Tagliabue Closed Cup)

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

Approximate 1.28 kg/dm<sup>3</sup> (20 °C)

Insoluble

Acetone: Very slightly soluble

Ethanol: Very slightly soluble

Diethylether: Miscible (in all proportions).

Aliphatic hydrocarbons: Miscible (in all proportions).

Aromatic hydrocarbons: Miscible (in all proportions).

Chlorinated solvents: Miscible (in all proportions).

No data available.

No data available.

No data available.

No data available.

## 9.2 Other information:

**Oxidizing properties:**

According to the data on the components  
 Not considered as oxidizing.  
 (according to EC criteria)

**Particle Size:**

Not applicable

## 10. Stability and reactivity

### 10.1 Reactivity:

Not relevant.

### 10.2 Chemical Stability:

Stable

### 10.3 Possibility of hazardous reactions:

Will not occur.

### 10.4 Conditions to avoid:

No other information noted.

### 10.5 Incompatible Materials:

Strong oxidizing agents.

## 10.6 Hazardous Decomposition Products:

This product can form formaldehyde vapors when heated to temperatures above 150 degrees C in the presence of air. Thermal decomposition or combustion may liberate carbon oxides, other toxic gases or vapors and amorphous silica.

## 11. Toxicological information

### 11.1 Information on toxicological effects:

#### Acute toxicity:

##### **Oral:**

Not classified for acute toxicity based on available data.

##### **Dermal:**

Not classified for acute toxicity based on available data.

##### **Inhalation:**

Not classified for acute toxicity based on available data.

#### Repeated dose toxicity:

##### **Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

NOAEL: 1.82 mg/l ; LOAEL: 8.5 mg/l ; (Rat ; Female, Male ; Inhalation - vapour) ; Target Organ(s): Kidney ; Method: Similar to OECD 453 ; Chronic exposure.

NOAEL: >= 960 mg/kg ; (Rabbit ; Female, Male ; Dermal) ; No treatment-related adverse effects observed ; Method: Similar to OECD 410 ; Subacute exposure.

#### Skin Corrosion/Irritation:

##### **Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

An Expert Judgment stated that no classification is necessary based on present knowledge. Not irritating (Rabbit) ; Method: Similar to OECD 404

#### Serious Eye Damage/Eye Irritation:

##### **Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

An Expert Judgment stated that no classification is necessary based on present knowledge. Not irritating (Rabbit) ; Method: OECD 405

#### Respiratory or Skin Sensitization:

##### **Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Skin sensitization: Not a skin sensitizer. (Guinea Pig) ; Method: OECD 406

#### Germ Cell Mutagenicity:

##### **In vitro: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Bacterial reverse mutation test: No mutagenic effect. (Salmonella typhimurium ; with and without metabolic activation) ; Method: OECD 471

In vitro gene mutations test on mammalian cells: No mutagenic effect. (Mouse lymphoma cells ; with and without metabolic activation) ; Method: Similar to OECD 476

In vitro mammalian chromosomal aberration test: No clastogenic effect. (Chinese hamster ovary cells ; with and without metabolic activation) ; Method: Similar to OECD 473

**In vivo: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Mammalian bone marrow chromosomal aberration test: negative (Rat ; Female, Male ; Inhalation) ; Method: Similar to OECD 475

Rodent dominant Lethal test: negative (Rat ; Female, Male ; Gavage (Oral)) ; Method: Similar to OECD 478

**Carcinogenicity:**

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Quartz Overall evaluation: 1. Carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Quartz Known To Be Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:**

Quartz Cancer

**Reproductive toxicity:**

**Fertility: Based on our knowledge of the composition information: Suspected of damaging fertility.**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Suspected of damaging fertility.

Fertility study 2 generations: NOAEL (parent): 3.64 mg/l ; NOAEL (F1): 3.64 mg/l ; NOAEL (F2): None. (Rat ; Female, Male ; Inhalation) ; Method: Similar to OECD 416 ; Effects on fertility

**Teratogenicity: Based on our knowledge of the composition information: Suspected of damaging fertility.**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

NOAEL (terato): > 8.492 mg/l ; NOAEL (mater): 3.64 mg/l (Rat ; Inhalation - vapor) ; Method: Similar to OECD 414 ; The product is not considered to be toxic for development.

NOAEL (terato): > 6.066 mg/l ; NOAEL (mater): 3.64 mg/l (Rabbit ; Inhalation - vapor) ; Method: Similar to OECD 414 ; The product is not considered to be toxic for development.

**Specific Target Organ Toxicity - Single Exposure:**

**Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity - Repeated Exposure:**

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

**QUARTZ (SiO<sub>2</sub>) [14808-60-7]: Causes damage to organs through prolonged or repeated exposure if inhaled.**

Inhalation - dust and mist: Target Organ(s): Lungs

**Aspiration Hazard:**

**Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Based on available data, the classification criteria are not met.



## 12. Ecological information

### General information:

The maximum concentration of Octamethylcyclotetrasiloxane (D4) in the aquatic environment is estimated to be below the established no-effect threshold (<0.0079 mg/l) for aquatic organisms (based on partition coefficient, tested on similar products).

### 12.1 Ecotoxicity:

#### Acute toxicity:

##### **Fish: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

LC 50 (Oncorhynchus mykiss; 96 h ; Flow through) : > 0.022 mg/l ; Method: According to a standardised method.

##### **Aquatic Invertebrates: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

EC 50 (Water flea (Daphnia magna); 48 h ; Flow through) : > 0.015 mg/l ; Method: According to a standardised method.

##### **Aquatic plants: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

ErC50 (Algae (Pseudokirchneriella subcapitata); 96 h) : > 0.022 mg/l ; Method: According to a standardised method.

ErC10 (Algae (Pseudokirchneriella subcapitata); 96 h) : >= 0.022 mg/l ; Method: According to a standardised method.

##### **Toxicity to microorganisms: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

EC 50 (3 h) : > 10,000 mg/l

#### Chronic Toxicity:

##### **Fish: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

NOEC (Oncorhynchus mykiss; 93 d ; Flow through) : >= 0.0044 mg/l ; Method: According to a standardised method.

##### **Aquatic Invertebrates: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

NOEC (Water flea (Daphnia magna); 21 d ; Flow through) : >= 0.015 mg/l ; Method: According to a standardised method.

### 12.2 Persistence and Degradability:

**Stability in water:** No data available.

##### **Biodegradation: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

3.7 % (activated sludge and sewage, soil ; 28 d) ; Method: OECD 310 ; The product is not considered to be readily biodegradable.

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

### 12.3 Bioaccumulative potential:

##### **Bioconcentration Factor (BCF): Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Bioconcentration Factor (BCF): 14,900 (Fathead Minnow) ; Method: OECD 305 ; Not bioaccumulable based on the depuration rate constant

**Partition coefficient (n-octanol/water): Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):*

Log Kow: 5.10

#### **12.4 Mobility in soil:**

No data available.

#### **12.5 Other adverse effects:**

No data available.

### **13. Disposal considerations**

#### **13.1 Waste treatment methods:**

The user's attention is drawn to the possible existence of local regulations regarding disposal.

##### **Disposal methods:**

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

##### **Contaminated Packaging:**

Contaminated packages should be as empty as possible. Recycle following cleaning or dispose of at an authorised site. Packaging that cannot be cleaned should be disposed of in the same way as the product it contained.

### **14. Transport information**

#### **DOT**

Not Regulated.

#### **IMDG / IMO**

Not Regulated.

#### **IATA**

Not Regulated.

### **15. Regulatory information**

#### **US Federal Regulations:**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):** None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):** None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA):**

##### **Hazard categories:**

Reproductive toxicity

**SARA 304 Emergency Release Notification:** None present or none present in regulated quantities.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:** None present or none present in regulated quantities.

**US State Regulations:**

**US. California Proposition 65:** No ingredient requiring a warning under CA Prop 65.

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

Chemical Identity:

Quartz  
 Silicon dioxide

**US. Massachusetts RTK - Substance List:**

Chemical Identity:

Quartz  
 Silicon dioxide

**US. Pennsylvania RTK - Hazardous Substances:**

Chemical Identity:

Quartz  
 Silicon dioxide

**US. Rhode Island RTK:**

Chemical Identity:

Quartz  
 Silicon dioxide

**Inventory Status:**

Canada DSL Inventory List:	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.

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

**NFPA Hazard ID:**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Wording of the H-statements in section 2 and 3:**

H226	Flammable liquid and vapor.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

**Issue Date:** 10/25/2024

**Version #:** 13.1

**Further Information:**

No data available.

**Disclaimer:**

The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

# SAFETY DATA SHEET

According to Regulation 2024 OSHA Hazard Communication Standard: 29 CFR 1910.1200

## 1. Identification of the substance or mixture and of the supplier

### 1.1 Product identifier:

**Product name:** BLUESIL V-612 B

**Product No.:** PRCO90054261

### 1.2 Relevant identified uses of the substance or mixture and uses advised against:

**Identified uses:** Used for making joints, sealing and gluing.

**Uses advised against:** None known.

### 1.3 Details of the supplier of the safety data sheet:

#### **Manufacturer:**

Elkem Silicones USA Corp.  
7979 Park Place Road  
29745 York, SC  
USA

**Telephone:** +1 (803) 792-3000

**Fax:** +1 (803) 684-7202

**E-mail:** product.stewardship@elkem.com

#### **Supplier:**

Elkem Silicones USA Corp.  
Two Tower Blvd, Suite 1802  
08816-1100 East Brunswick, NJ  
USA

**Telephone:** +1 (732) 227-2060

**Fax:** +1 (732) 249-7000

### 1.4 Emergency telephone number:

+1 (800) 424-9300 CHEMTREC

## 2. Hazard identification

### 2.1 Classification of the substance or mixture:

The product has been classified according to the legislation in force.

#### **Hazard Classification:**

##### **Health Hazards:**

Carcinogenicity	Category 1A	H350: May cause cancer.
Toxic to reproduction	Category 1B	H360Fd: May damage fertility. Suspected of damaging the unborn child.
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372: Causes damage to organs through prolonged or repeated exposure.

### 2.2 Label Elements:

#### **Hazard pictograms:**



<b>Signal Word:</b>	Danger
<b>Hazard statements:</b>	H360Fd: May damage fertility. Suspected of damaging the unborn child.
<b>Precautionary Statements:</b>	
<b>Prevention:</b>	P281: Use personal protective equipment as required.
<b>Response:</b>	P308+P313: IF exposed or concerned: Get medical advice/attention.

### 2.3 Other hazards which do not result in GHS classification:

Chemical compounds containing silicon - hydrogen bonds (SiH). This product may generate hydrogen gas. For further information, refer to section 10: "Stability and Reactivity".

## 3. Composition/information on ingredients

### Mixtures:

#### General information:

Mixture of Polyorganosiloxanes, fillers, additives.

#### Hazardous Component(s):

Chemical name	Concentration *	Type	CAS number	Classification
(1) Quartz	10 - <30%	Component	14808-60-7	Carc. 1A H350i; STOT RE 1 H372;
(1) Carbon black	5 - <10%	Component	1333-86-4	Carc. 2 H351;
2,4,6,8-Tetramethyl-2,4,6,8-tetravinylcyclotetrasiloxane	0.3 - <1%	Component	2554-06-5	Repr. 1B H360Fd;
Octamethylcyclotetrasiloxane	0.25 - <1%	Impurities	556-67-2	Flam. Liq. 3 H226; Repr. 2 H361; Aquatic Chronic 1 H410;  Aquatic Toxicity (Chronic): M = 10
Toluene	0.1 - <1%	Impurities	108-88-3	Flam. Liq. 2 H225; Skin Irrit. 2 H315; Repr. 2 H361d; STOT SE 3 H336; STOT RE 2 H373; Asp. Tox. 1 H304; Aquatic Chronic 3 H412;

(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.

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all H-statements is displayed in section 16.

## 4. First-aid measures

**General information:**

For further information refer to section 8 "Exposure-controls/personal protection".

**4.1 Description of first aid measures:****Inhalation:**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Get medical attention if symptoms occur.

**Skin Contact:**

Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.

**Eye Contact:**

In the event of contact with the eyes, rinse thoroughly with clean water for at least 15 minutes. Get medical attention if symptoms occur.

**Ingestion:**

Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.

**Personal Protection for First-aid Responders:**

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). Refer to sections 5 and 8 for information on emergency procedures and protective equipment.

**4.2 Most important symptoms and effects, both acute and delayed:**

Any important symptoms and effects are described in Section 11 (Toxicological information) of this SDS.

**4.3 Indication of any immediate medical attention and special treatment needed:****Notes to the physician:**

No specific recommendations. Show this Safety Data Sheet to the attending physician.

**5. Fire-fighting measures****5.1 Extinguishing media:****Suitable extinguishing media:**

Alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry sand. Water spray.

**Unsuitable extinguishing media:**

Alkaline powders. Do not use water jet as an extinguisher, as this will spread the fire.

**5.2 Special hazards arising from the substance or mixture:**

Product will burn under fire conditions. This product may generate hydrogen gas. Vapors may form explosive mixtures with air. Thermal decomposition or combustion may liberate carbon oxides, silicon oxides and other toxic gases or vapors.

**5.3 Advice for firefighters:****Special fire-fighting procedures:**

Use standard firefighting procedures and consider the hazards of other involved materials. Remove undamaged containers from fire area if it is safe to do so. Evacuate to a safe location and contact the emergency services. Water spray should be used to cool containers.

**Special protective equipment for fire-fighters:**

Firefighters should wear standard protective equipment and a positive pressure self-contained breathing apparatus (SCBA).

**6. Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures:**

Follow safe handling advice and personal protective equipment recommendations. Provide good ventilation. Remove all possible sources of ignition in the surrounding area. Prevent further leakage or spillage if safe to do so. Avoid contact with alkalis and caustic products. Caution: Contaminated surfaces may be slippery.

### **6.2 Environmental precautions:**

Do not discharge into drains, water courses or onto the ground. Use containment for a large spill.

### **6.3 Methods and material for containment and cleaning up:**

Absorb with sand or other inert absorbent. Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas. Use clean non-sparking tools to collect absorbed material. Shovel up and place in a container for salvage or disposal. Recovered material should be stored in a vented container. Dispose of residue in accordance with regulations in force.

### **6.4 Reference to other sections:**

Please observe the important information mentioned in the other sections. In particular, information on exposure controls/personal protection and disposal considerations can be found under sections 8 and 13.

## **7. Handling and storage**

### **7.1 Precautions for safe handling:**

#### **Precautions:**

This product may generate hydrogen gas. Keep away from ignition source. Empty container after use should be stored in separate area, and be disposed after degassing completely. Handle and open container with care. Take precautionary measures against static discharges. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Avoid inhalation of vapors/aerosols/dusts and contact with skin and eyes. Use mechanical ventilation in case of handling which causes formation of vapors. If ventilation is insufficient, suitable respiratory protection must be provided. See Section 8 of the SDS for Personal Protective Equipment. Do not mix with incompatible materials. For further information, refer to section 10: "Stability and Reactivity". Take care to prevent spills, waste and minimize release to the environment. In case of spills, beware of slippery floors and surfaces. Contact Elkem Silicones for additional publications on the safe handling of SiH Product.

#### **Hygiene measures:**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

### **7.2 Conditions for safe storage, including any incompatibilities:**

Store in accordance with local/regional/national regulations. Avoid discharge into drains, water courses or onto the ground. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. For further information, refer to section 10: "Stability and Reactivity". Store in original tightly closed container, equipped with a degassing device. Product may evolve minute quantities of flammable hydrogen gas which can accumulate. Adequately ventilate to maintain vapors well below flammability limits and exposure guidelines. Do not repackage. Clogged container vents may increase pressure build up. Take care to always ensure that drums are kept in their upright position at any time during transportation, handling or storage since lied down drums could result in clogged exhaust valves. Keep in properly labelled containers. Protect against physical damage and/or friction.

#### **Packaging frequently used at our sites:**

Polyethylene. Steel drums coated with epoxy-resin.

### **7.3 Specific end use(s):**

See the technical data sheet on this product for further information.



## 8. Exposure controls/personal protection

### 8.1 Control Parameters:

#### Occupational Exposure Limits:

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material.

#### Quartz

Type	Exposure Limit Values	Source	Date	Remarks
IDLH	- 50 mg/m <sup>3</sup>	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria
REL	- 0.05 mg/m <sup>3</sup>	NIOSH	2005	Respirable dust.
TWA	- 0.1 mg/m <sup>3</sup>	OSHA Z1A	1989	Respirable dust.
TWA	- 2.4 millions of particles per cubic foot of air	Z3	2000	The exposure limit is calculated from the equation, 250/(%SiO <sub>2</sub> +5), using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits. Respirable.
TWA	- 0.1 mg/m <sup>3</sup>	Z3	2000	The exposure limit is calculated from the equation, 10/(%SiO <sub>2</sub> +2), using a value of 100% SiO <sub>2</sub> . Lower percentages of SiO <sub>2</sub> will yield higher exposure limits. Respirable.
PEL	- 0.05 mg/m <sup>3</sup>	OSHA Z1	03 2016	Respirable dust.
REF	- -	OSHA	03 2016	29 CFR 1910.1053 Respirable dust.
TWA	- 0.05 mg/m <sup>3</sup>	OSHA	03 2016	Respirable dust.
OSHA_ACT	- 0.025 mg/m <sup>3</sup>	OSHA	03 2016	Respirable dust.
TWA	- 0.025 mg/m <sup>3</sup>	ACGIH	01 2022	Respirable fraction.

#### Carbon black

Type	Exposure Limit Values	Source	Date	Remarks
REL	- 3.5 mg/m <sup>3</sup>	NIOSH	2005	
PEL	- 3.5 mg/m <sup>3</sup>	OSHA Z1	02 2006	
TWA	- 3.5 mg/m <sup>3</sup>	OSHA Z1A	1989	
TWA	- 3 mg/m <sup>3</sup>	ACGIH	12 2010	Inhalable fraction.
REL	- 0.1 mg/m <sup>3</sup>	NIOSH	2016	as PAHs
IDLH	- 1,750 mg/m <sup>3</sup>	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria
TWA	- 5 mg/m <sup>3</sup>	Z3	09 2016	Respirable fraction.
TWA	- 15 millions of particles per cubic foot of air	Z3	09 2016	Respirable fraction.
TWA	- 50 millions of particles per cubic foot of air	Z3	09 2016	Total dust.
TWA	- 15 mg/m <sup>3</sup>	Z3	09 2016	Total dust.

#### Toluene

Type	Exposure Limit Values	Source	Date	Remarks
IDLH	500 ppm -	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria
STEL	150 ppm 560 mg/m <sup>3</sup>	NIOSH	2005	
REL	100 ppm 375 mg/m <sup>3</sup>	NIOSH	2005	
TWA	100 ppm 375 mg/m <sup>3</sup>	OSHA Z1A	1989	
TWA	20 ppm -	ACGIH	2008	
STEL	150 ppm 560 mg/m <sup>3</sup>	OSHA Z1A	1989	
TWA	200 ppm -	OSHA Z2	02 2006	
Ceiling	300 ppm -	OSHA Z2	02 2006	
MAX. CONC	500 ppm -	OSHA Z2	02 2006	
LEL	- 1.1 %	NIOSH IDLH	07 2020	

**Octamethylcyclotetrasiloxane**

Type	Exposure Limit Values	Source	Date	Remarks
TWA	10 ppm -	WEEL	2020	

**Biological Limit Values:**

**Toluene**

Exposure Limit Values	Type	Source	Date
0.3 mg/g (Creatinine in urine)	o-Cresol, with hydrolysis (Sampling time: End of shift.)	ACGIH BEI	03 2013

0.02 mg/l (Blood)	Toluene (Sampling time: Prior to last shift of work week.)	ACGIH BEI	03 2013
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0.03 mg/l (Urine)	Toluene (Sampling time: End of shift.)	ACGIH BEI	03 2013
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**Additional exposure limits under the conditions of use:**

**8.2 Exposure controls:**

**Appropriate Engineering Controls:**

Use engineering controls to reduce air contamination to permissible exposure level. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment:**

Provide sufficient ventilation during operations which cause vapor formation. Personal protective equipment should be chosen according to applicable standards, adapted to the conditions of use of the product and in discussion with the supplier of the personal protective equipment.

<b>Eye/face protection:</b>	Safety glasses with side shields
<b>Hand Protection:</b>	Protective gloves are recommended.
<b>Skin and Body Protection:</b>	No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
<b>Respiratory Protection:</b>	No protection is ordinarily required under normal conditions of use and with adequate ventilation.

**Environmental Controls:**

See sections 7 and 13 of the Safety Data Sheet.

**9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties:**

**Appearance:**

<b>Physical state:</b>	Liquid
<b>Form:</b>	Viscous
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>pH:</b>	By definition, pH measurement consists in the determination of hydrogen ions concentration in solution, generally aqueous. Silicones products are hydrophobic and therefore, not soluble in water. By consequence, it is not possible to measure the pH value.

<b>Melting point/freezing point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	> 94 °C / 201 °F
<b>Flammability:</b>	No data available.
<b>Flammability Limit - Upper (%):</b>	74 %(V) Hydrogen.
<b>Flammability Limit - Lower (%):</b>	4 %(V) Hydrogen.
<b>Vapor pressure:</b>	No data available.
<b>Relative vapor density:</b>	No data available.
<b>Evaporation Rate:</b>	No data available.
<b>Density:</b>	Approximate 1.1 kg/dm <sup>3</sup> (20 °C)
<b>Solubility(ies):</b>	
<b>Solubility in Water:</b>	Insoluble
<b>Solubility (other):</b>	Acetone: Very slightly soluble Ethanol: Very slightly soluble Diethylether: Miscible (in all proportions). Aliphatic hydrocarbons: Miscible (in all proportions). Aromatic hydrocarbons: Miscible (in all proportions). Chlorinated solvents: Miscible (in all proportions).
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Self-ignition:</b>	500 °C Hydrogen.
<b>Decomposition Temperature:</b>	No data available.
<b>Kinematic viscosity:</b>	No data available.

## 9.2 Other information:

<b>Oxidizing properties:</b>	According to the data on the components Not considered as oxidizing. (according to EC criteria)
<b>Particle Size:</b>	Not applicable

## 10. Stability and reactivity

### 10.1 Reactivity:

No other information noted.

### 10.2 Chemical Stability:

Material is stable under normal conditions.

### 10.3 Possibility of hazardous reactions:

This product may generate hydrogen gas.

### 10.4 Conditions to avoid:

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible Materials:

A fire or explosion hazard arises because highly flammable gas (hydrogen) is released when this product is in contact with : Strong oxidizers, strong bases and chemical compounds with mobile hydrogen, in the presence of metal salts and complexes.

## 10.6 Hazardous Decomposition Products:

This product can form formaldehyde vapors when heated to temperatures above 150 degrees C in the presence of air. Thermal decomposition or combustion may liberate carbon oxides, other toxic gases or vapors and amorphous silica.

Quantity of hydrogen potentially released (l/kg of product): < 40

## 11. Toxicological information

### 11.1 Information on toxicological effects:

#### Acute toxicity:

##### **Oral:**

Not classified for acute toxicity based on available data.

##### **Dermal:**

Not classified for acute toxicity based on available data.

##### **Inhalation:**

Not classified for acute toxicity based on available data.

#### Repeated dose toxicity:

##### **Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*

NOAEL: 15 mg/kg ; LOAEL: 150 mg/kg ; (Rat ; Female, Male ; 13 Weeks ; Gavage (Oral)) ; Target Organ(s): ovaries ; Method: OECD 408

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*

NOAEL: 1.82 mg/l ; LOAEL: 8.5 mg/l ; (Rat ; Female, Male ; Inhalation - vapour) ; Target Organ(s): Kidney ; Method: Similar to OECD 453 ; Chronic exposure.

NOAEL: >= 960 mg/kg ; (Rabbit ; Female, Male ; Dermal) ; No treatment-related adverse effects observed ; Method: Similar to OECD 410 ; Subacute exposure.

*TOLUENE (108-88-3):*

May cause damage to organs through prolonged or repeated exposure.

NOAEL: 625 mg/kg ; LOAEL: 1,250 mg/kg ; (Rat ; 90 d ; Oral) ; Target Organ(s): Nervous System, Liver, Kidney, Brain, Heart ; Method: OECD 408

NOAEL: > 1.13 mg/l ; (Rat ; Female, Male ; 24 Months ; Inhalation - vapour) ; No treatment-related adverse effects observed ; Method: OECD 453

#### Skin Corrosion/Irritation:

##### **Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*

Based on available data, the classification criteria are not met. Not irritating (Rabbit) ; Method: Similar to OECD 404 ; Results obtained on a similar product.

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*

An Expert Judgment stated that no classification is necessary based on present knowledge. Not irritating (Rabbit) ; Method: Similar to OECD 404

*TOLUENE (108-88-3):*

Causes skin irritation. Irritant. (Rabbit ; 4 h) ; Method: OECD 404

#### Serious Eye Damage/Eye Irritation:

##### **Based on our knowledge of the composition information:**

**2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):**

Based on available data, the classification criteria are not met. Not irritating (Rabbit ; 24 h) ; Method: Similar to OECD 405 ; Results obtained on a similar product.

**OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):**

An Expert Judgment stated that no classification is necessary based on present knowledge. Not irritating (Rabbit) ; Method: OECD 405

**TOLUENE (108-88-3):**

Based on available data, the classification criteria are not met. Not irritating (Rabbit) ; Method: OECD 405

**Respiratory or Skin Sensitization:**

**Based on our knowledge of the composition information:**

**2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):**

Skin sensitizer: Based on available data, the classification criteria are not met. ; Not a skin sensitizer. (Guinea Pig) ; Method: According to a standardised method.

**OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):**

Skin sensitization: Not a skin sensitizer. (Guinea Pig) ; Method: OECD 406

**TOLUENE (108-88-3):**

Skin sensitization: Not a skin sensitizer. (Guinea Pig) ; Method: OECD 406

**Germ Cell Mutagenicity:**

**In vitro: Based on our knowledge of the composition information:**

**2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):**

Bacterial reverse mutation test: No mutagenic effect. (Salmonella typhimurium ; with and without metabolic activation) ; Method: OECD 471

Chromosomal aberration: Positive with metabolic activation., Negative without metabolic activation. (Chinese hamster lung cells) ; Method: OECD 473

**OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):**

Bacterial reverse mutation test: No mutagenic effect. (Salmonella typhimurium ; with and without metabolic activation) ; Method: OECD 471

In vitro gene mutations test on mammalian cells: No mutagenic effect. (Mouse lymphoma cells ; with and without metabolic activation) ; Method: Similar to OECD 476

In vitro mammalian chromosomal aberration test: No clastogenic effect. (Chinese hamster ovary cells ; with and without metabolic activation) ; Method: Similar to OECD 473

**TOLUENE (108-88-3):**

Bacterial reverse mutation test: No mutagenic effect. Method: Similar to OECD 471

In vitro gene mutations test on mammalian cells: No mutagenic effect. Method: Similar to OECD 476

**In vivo: Based on our knowledge of the composition information:**

**2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):**

Mammalian erythrocyte micronucleus test: negative (Mouse ; Gavage (Oral)) ; Method: OECD 474

**OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):**

Mammalian bone marrow chromosomal aberration test: negative (Rat ; Female, Male ; Inhalation) ; Method: Similar to OECD 475

Rodent dominant Lethal test: negative (Rat ; Female, Male ; Gavage (Oral)) ; Method: Similar to OECD 478

**TOLUENE (108-88-3):**

Mammalian bone marrow chromosomal aberration test: negative (Rat ; Intraperitoneal)

Rodent dominant Lethal test: negative (Mouse ; Inhalation) ; Method: OECD 478

**Carcinogenicity:**

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Quartz Overall evaluation: 1. Carcinogenic to humans.  
Carbon black Overall evaluation: 2B. Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Quartz Known To Be Human Carcinogen.  
Carbon black Known To Be Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:**

Quartz Cancer

**Reproductive toxicity:**

**Fertility: Based on our knowledge of the composition information: May damage fertility. Suspected of damaging the unborn child.**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*

May damage fertility.

Reproduction/developmental toxicity screening test: NOAEL (parent): 15 mg/kg ; NOAEL (F1): 150 mg/kg ; NOAEL (F2): None. (Rat ; Gavage (Oral)) ; Method: OECD 421 ; Effects on fertility

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*

Suspected of damaging fertility.

Fertility study 2 generations: NOAEL (parent): 3.64 mg/l ; NOAEL (F1): 3.64 mg/l ; NOAEL (F2): None. (Rat ; Female, Male ; Inhalation) ; Method: Similar to OECD 416 ; Effects on fertility

*TOLUENE (108-88-3):*

The product is not considered to affect fertility.

Fertility study 2 generations: NOAEL (parent): 7.5 mg/l ; NOAEL (F1): 7.5 mg/l ; NOAEL (F2): (Rat ; Female, Male ; Inhalation - vapor) ; Reproductive toxicity

**Teratogenicity: Based on our knowledge of the composition information: May damage fertility. Suspected of damaging the unborn child.**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*

Suspected of damaging the unborn child.

NOAEL (terato): 100 mg/kg ; NOAEL (mater): 100 mg/kg (Rat ; Gavage (Oral)) ; Method: OECD 414 ; Embryo-foeto / Teratogenic effects have been observed.

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*

NOAEL (terato): > 8.492 mg/l ; NOAEL (mater): 3.64 mg/l (Rat ; Inhalation - vapor) ; Method: Similar to OECD 414 ; The product is not considered to be toxic for development.

NOAEL (terato): > 6.066 mg/l ; NOAEL (mater): 3.64 mg/l (Rabbit ; Inhalation - vapor) ; Method: Similar to OECD 414 ; The product is not considered to be toxic for development.

*TOLUENE (108-88-3):*

Suspected of damaging the unborn child.

NOAEL (terato): 2.26 mg/l ; NOAEL (mater): 2.26 mg/l (Rat ; Inhalation - vapor) ; Method: Similar to OECD 414 ; No effect observed on development.

NOAEL (terato): 1.884 mg/l ; NOAEL (mater): 1.884 mg/l (Rabbit ; Inhalation - vapor) ; Method: OECD 414 ; No effect observed on development.

**Specific Target Organ Toxicity - Single Exposure:**

**Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*  
Not classified

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*  
Based on available data, the classification criteria are not met.

*TOLUENE (108-88-3):*  
May cause drowsiness or dizziness.

**Specific Target Organ Toxicity - Repeated Exposure:**

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

**QUARTZ (SiO<sub>2</sub>) [14808-60-7]: Causes damage to organs through prolonged or repeated exposure if inhaled.**

Inhalation - dust and mist: Target Organ(s): Lungs

**Aspiration Hazard:**

**Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*  
Not classified

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*  
Based on available data, the classification criteria are not met.

*TOLUENE (108-88-3):*  
May be fatal if swallowed and enters airways.

## 12. Ecological information

**General information:**

The maximum concentration of Octamethylcyclotetrasiloxane (D4) in the aquatic environment is estimated to be below the established no-effect threshold (<0.0079 mg/l) for aquatic organisms (based on partition coefficient, tested on similar products).

**12.1 Ecotoxicity:**

**Acute toxicity:**

**Fish: Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*  
LL50 (Sheepshead minnow (Cyprinodon variegatus); 96 h ; semi-static) : > 1,000 mg/l ; Method: OECD 203

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*  
LC 50 (Oncorhynchus mykiss; 96 h ; Flow through) : > 0.022 mg/l ; Method: According to a standardised method.

*TOLUENE (108-88-3):*  
LC 50 (Coho salmon; 96 h ; Flow through) : 5.5 mg/l

**Aquatic Invertebrates: Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*  
LL50 (Calanoid copepod (Acartia tonsa); 48 h ; Static) : 272 mg/l ; Method: According to a standardised method.



NOELR (Calanoid copepod (*Acartia tonsa*); 48 h ; Static) : 100 mg/l ; Method: According to a standardised method.

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)*:  
EC 50 (Water flea (*Daphnia magna*); 48 h ; Flow through) : > 0.015 mg/l ; Method: According to a standardised method.

*TOLUENE (108-88-3)*:  
EC 50 (Water flea (*Ceriodaphnia dubia*); 48 h ; semi-static) : 3.78 mg/l ; Method: According to a standardised method.

**Aquatic plants: Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5)*:  
ErL50 (*Skeletonema costatum*; 70.5 h ; Static) : > 988 mg/l ; Method: According to a standardised method.  
NOELR (*Skeletonema costatum*; 70.5 h ; Static) : >= 988 mg/l ; Method: According to a standardised method.

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)*:  
ErC50 (Algae (*Pseudokirchneriella subcapitata*); 96 h) : > 0.022 mg/l ; Method: According to a standardised method.  
ErC10 (Algae (*Pseudokirchneriella subcapitata*); 96 h) : >= 0.022 mg/l ; Method: According to a standardised method.

*TOLUENE (108-88-3)*:  
NOEC (biomass) (*Skeletonema costatum*; 72 h ; Static) : 10 mg/l ; Method: OECD 201

**Toxicity to microorganisms: Based on our knowledge of the composition information:**

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)*:  
EC 50 (3 h) : > 10,000 mg/l

**Chronic Toxicity:**

**Fish: Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5)*:  
NOEC (*Oncorhynchus mykiss*; 93 d ; Flow through) : >= 0.0044 mg/l ; Method: OECD 210 ; Results obtained on a similar product.

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)*:  
NOEC (*Oncorhynchus mykiss*; 93 d ; Flow through) : >= 0.0044 mg/l ; Method: According to a standardised method.

*TOLUENE (108-88-3)*:  
NOEC (growth rate) (Coho salmon; 40 d ; Flow through) : 1.4 mg/l

**Aquatic Invertebrates: Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5)*:  
NOEC (Water flea (*Daphnia magna*); 21 d ; Flow through) : 0.0079 mg/l ; Method: OECD 211 ; Results obtained on a similar product.

*OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)*:  
NOEC (Water flea (*Daphnia magna*); 21 d ; Flow through) : >= 0.015 mg/l ; Method: According to a standardised method.

*TOLUENE (108-88-3)*:  
NOEC (Water flea (*Ceriodaphnia dubia*); 7 d ; semi-static) : 0.74 mg/l ; Method: According to a standardised method.

**12.2 Persistence and Degradability:**



**Stability in water:** No data available.

**Biodegradation:**

The product is not biodegradable.

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

**12.3 Bioaccumulative potential:**

**Bioconcentration Factor (BCF):**

The product is not bioaccumulating.

**Partition coefficient (n-octanol/water): Based on our knowledge of the composition information:**

*2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYL CYCLOTETRASILOXANE (2554-06-5):*

Log Kow: 6.47 (20 °C) ; Method: OECD 117

*OCTAMETHYL CYCLOTETRASILOXANE (556-67-2):*

Log Kow: 5.10

*TOLUENE (108-88-3):*

Log Kow: 2.73

**12.4 Mobility in soil:**

No data available.

**12.5 Other adverse effects:**

No data available.

## 13. Disposal considerations

**13.1 Waste treatment methods:**

The user's attention is drawn to the possible existence of local regulations regarding disposal.

**Disposal methods:**

Waste of this material should not be mixed with other waste. Provide measures such as vented bungs to ensure pressure relief in the waste container. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:**

Contaminated packages should be as empty as possible and equipped with a degassing device. Recycle following cleaning or dispose of at an authorised site. Packaging that cannot be cleaned should be disposed of in the same way as the product it contained.

## 14. Transport information

**DOT**

Not Regulated.

**IMDG / IMO**

Not Regulated.

**IATA**

Not Regulated.

**Other information:**

Warning

Packaging with a breathing/venting bung are FORBIDDEN for transport by air.

## 15. Regulatory information

### US Federal Regulations:

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):** None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):** None present or none present in regulated quantities.

### **Superfund Amendments and Reauthorization Act of 1986 (SARA):**

#### **Hazard categories:**

Reproductive toxicity

**SARA 304 Emergency Release Notification:** None present or none present in regulated quantities.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:** None present or none present in regulated quantities.

### US State Regulations:

#### **US. California Proposition 65:**



This product can expose you to chemicals including: Toluene (<0.4%) which is [are] known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

##### Chemical Identity:

Quartz

Carbon black

#### **US. Massachusetts RTK - Substance List:**

##### Chemical Identity:

Quartz

Carbon black

#### **US. Pennsylvania RTK - Hazardous Substances:**

##### Chemical Identity:

Quartz

Carbon black

#### **US. Rhode Island RTK:**

##### Chemical Identity:

Quartz

Carbon black

### Inventory Status:

Australia Industrial Chem. Act (AIIIC):

Canada DSL Inventory List:

On or in compliance with the inventory.

On or in compliance with the inventory.

China Inv. Existing Chemical Substances:	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory.
Thailand DIW Existing Chemical Inv. List:	On or in compliance with the inventory.
Vietnam National Chemical Inventory:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.

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

**NFPA Hazard ID:**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Wording of the H-statements in section 2 and 3:**

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Issue Date:** 10/25/2024

**Version #:** 15.1

**Further Information:**

No data available.

**Disclaimer:**

The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.