SAFETY DATA SHEET

According to Regulation 2012 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-340 **Product No.:** PRCO90035603

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

Identified uses: Molding diverse objects.
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 not been classified as hazardous according to the legislation in force.

Hazard Classification: Not classified

2.2 Label Elements:

Hazard pictograms: No symbol

Signal Word: No signal word.

Hazard statements: Not applicable

Precautionary Statements:

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	20 - <50%	Component	14808-60-7	Carc. 1A H350i; STOT RE 1 H372;

(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:
No specific first aid measures noted.

4.1 Description of first aid measures:

Inhalation:
Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

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.

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:

Provide good ventilation. Avoid inhalation of vapors, mists or dusts. Avoid contact with eyes, skin, and clothing. Prevent further leakage or spillage if safe to do so. 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:
Avoid inhalation of vapors/aerosols/dusts and contact with skin and eyes. See Section 8 of the SDS for Personal Protective Equipment. 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.

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:
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.

Additional exposure limits under the conditions of use:

8.2 Exposure controls:

Appropriate Engineering Controls:
No special requirements under ordinary conditions of use and with adequate ventilation.

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:	Wear suitable protective clothing.
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:	Beige
Odor:	Slight odor
pH:	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.
Melting point/freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 100 °C / 212 °F (Tagliabue Closed Cup)
Flammability:	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	No data available.

Relative vapor density:	No data available.
Evaporation Rate:	No data available.
Density:	1.36 kg/dm3 (20 °C)
Solubility(ies):	
Solubility in Water:	Insoluble
Solubility (other):	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).
Partition coefficient (n-octanol/water):	No data available.
Self Ignition Temperature:	> 400 °C
Decomposition Temperature:	No data available.
Kinematic viscosity:	50,000 - 70,000 mm2/s (25 °C)

9.2 Other information:

Dynamic viscosity:	Approximate 68,000 - 95,000 mPa.s (25 °C)
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:

No data available.

Skin Corrosion/Irritation:

No data available.

Serious Eye Damage/Eye Irritation:

No data available.

Respiratory or Skin Sensitization:

No data available.

Germ Cell Mutagenicity:

In vitro: No data available.

In vivo: No data available.

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 1910.1001-1050), as amended:

Quartz	Cancer

Reproductive toxicity:

Fertility: No data available.

Teratogenicity: No data available.

Specific Target Organ Toxicity - Single Exposure:

No data available.

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.

Aspiration Hazard:

No data available.

12. Ecological information

12.1 Ecotoxicity:

Acute toxicity:

Fish: No data available.

Aquatic Invertebrates: No data available.

Aquatic plants: No data available.

Toxicity to microorganisms: No data available.

Chronic Toxicity:

Fish: No data available.

Aquatic Invertebrates: No data available.

12.2 Persistence and Degradability:

Biodegradation: No data available.

BOD/COD Ratio: No data available.

12.3 Bioaccumulative potential:

Bioconcentration Factor (BCF): No data available.

Partition coefficient (n-octanol/water): No data available.

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. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Recycle following cleaning or dispose of at an authorised site.

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:
Not classified

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

US. Massachusetts RTK - Substance List:
Chemical Identity:
Quartz

US. Pennsylvania RTK - Hazardous Substances:
Chemical Identity:
Quartz

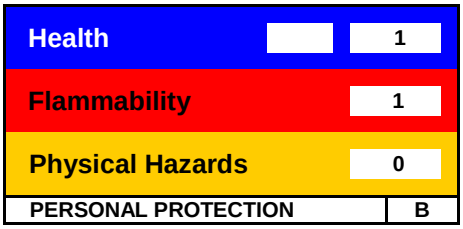
US. Rhode Island RTK: No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Canada DSL Inventory List:	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.
Vietnam National Chemical Inventory:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.

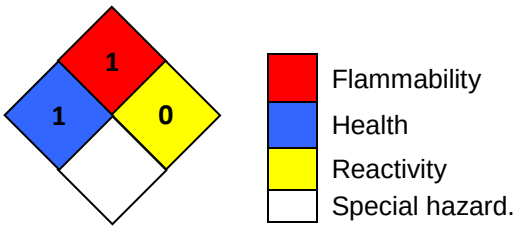
16. Other information, including date of preparation or last revision

HMIS Hazard ID:



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect
B - Safety Glasses & Gloves

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:

H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.

Issue Date: 07/29/2022

Version #: 12.0

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 2012 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 CA-45 BLUE **Product No.:** PRCO90054179

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

Identified uses: Catalyst
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:

Toxic to reproduction	Category 1B	H360Fd: May damage fertility. Suspected of damaging the unborn child.

2.2 Label Elements:

Hazard pictograms:

Signal Word: Danger

Hazard statements: H360Fd: May damage fertility. Suspected of damaging the unborn child.

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:

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.

Hazardous Component(s):

Chemical name	Concentration *	Type	CAS number	Classification
2,4,6,8-Tetramethyl-2,4,6,8-tetravinylcyclotetrasiloxane	0.1 - <0.3%	Component	2554-06-5	Repr. 1B H360Fd;
Octamethylcyclotetrasiloxane	0.1 - <0.25%	Impurities	556-67-2	Flam. Liq. 3 H226; Repr. 2 H361; Aquatic Chronic 1 H410; Aquatic Toxicity (Chronic): M = 10

* 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:
In case of inhalation: Move person into fresh air and keep at rest.
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 (CO2). 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. Eliminate all sources of ignition. Avoid contact with alkalis and caustic products.
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. Use clean non-sparking tools to collect absorbed material. Scrape up and place in appropriate vented container. Recovered material should be stored in a vented container. Materials in contact with water, moisture, acids or bases have the potential to generate hydrogen gas.

6.4 Reference to other sections:

Please observe the important information mentioned in the other sections. See Section 8 of the SDS for Personal Protective Equipment. For further information, refer to section 10: "Stability and Reactivity". For waste disposal, see section 13 of the SDS.

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.

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:
None of the components have assigned exposure limits.

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:	Blue
Odor:	Slight odor
pH:	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.
Melting point/freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 130 °C / 266 °F (estimated)
Flammability:	No data available.
Flammability Limit - Upper (%):	74 %(V) Hydrogen.
Flammability Limit - Lower (%):	4 %(V) Hydrogen.
Vapor pressure:	No data available.
Relative vapor density:	No data available.
Evaporation Rate:	No data available.
Density:	No data available.
Solubility(ies):	
Solubility in Water:	Insoluble
Solubility (other):	Acetone: Miscible (in all proportions). Ethanol: Miscible (in all proportions). Diethylether: Miscible (in all proportions). Aliphatic hydrocarbons: Miscible (in all proportions). Aromatic hydrocarbons: Miscible (in all proportions). Chlorinated solvents: Miscible (in all proportions).
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	500 °C Hydrogen.
Decomposition Temperature:	No data available.
Kinematic viscosity:	400 - 600 mm2/s (25 °C)

9.2 Other information:

Oxidizing properties:	According to the data on the components Not considered as oxidizing.

(according to EC criteria)

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): < 22

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-TETRAVINYLCYCLOTETRASILOXANE (*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

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*2554-06-5*):
Mammalian erythrocyte micronucleus test: negative (Mouse ; Gavage (Oral)) ; Method: OECD 474

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:

No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:
No carcinogens present or none present in regulated quantities

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-TETRAVINYLCYCLOTETRASILOXANE (*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

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: May damage fertility. Suspected of damaging the unborn child.
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

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

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

Specific Target Organ Toxicity - Repeated Exposure:

Based on our knowledge of the composition information:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*2554-06-5*):
Not classified

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

Aspiration Hazard:

Based on our knowledge of the composition information:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*2554-06-5*):
Not classified

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

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

Aquatic plants: Based on our knowledge of the composition information:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

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-TETRAVINYLCYCLOTETRASILOXANE (*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.

Aquatic Invertebrates: Based on our knowledge of the composition information:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*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.

12.2 Persistence and Degradability:

Stability in water: No data available.

Biodegradation: Based on our knowledge of the composition information:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*2554-06-5*):
3.7 % (29 d) ; Method: OECD 310 ; The product is not considered to be readily biodegradable.

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*2554-06-5*):
Bioconcentration Factor (BCF): 12,400 (Pimephales promelas ; 28 d) ; Method: OECD 305 ; The product is not bioaccumulating.

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:
2,4,6,8-TETRAMETHYL-2,4,6,8-TETRAVINYLCYCLOTETRASILOXANE (*2554-06-5*):
Log Kow: 6.47 (20 °C) ; Method: OECD 117

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. 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.

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: No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act: No ingredient regulated by RI Right-to-Know Law present.

US. Massachusetts RTK - Substance List: No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances: No ingredient regulated by PA Right-to-Know Law present.

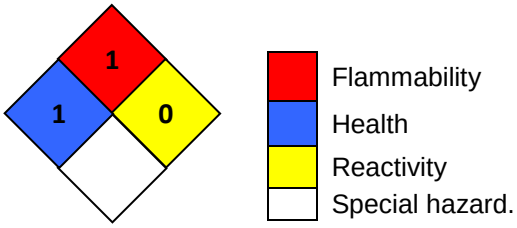
US. Rhode Island RTK: No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Canada DSL Inventory List:	On or in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory.
Japan (ENCS) List:	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.
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:

H226	Flammable liquid and vapor.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.

Issue Date: 04/04/2023

Version #: 8.2

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.