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 ESA 6009T A BLU U1 **Product No.:** PRCO90065207

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

Identified uses: Isolation of electrical or electronic material.
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 2	H361f: Suspected of damaging fertility.

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, additives.

Hazardous Component(s):

Chemical name	Concentration *	Type	CAS number	Classification
Octamethylcyclotetrasiloxane	0.1 - <1%	Impurities	556-67-2	Flam. Liq. 3 H226; Repr. 2 H361f; 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:
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 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.

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:
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:	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:	Odorless
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:	> 94 °C / > 201 °F (estimated)
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:	No data available.
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:	No data available.
Decomposition Temperature:	No data available.
Kinematic viscosity:	800 - 2,700 mm2/s

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:

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:

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: 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:

No data available.

Specific Target Organ Toxicity - Repeated Exposure:

No data available.

Aspiration Hazard:

No data available.

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): 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. Incinerate or landfill. 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: No ingredient regulated by NJ 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.

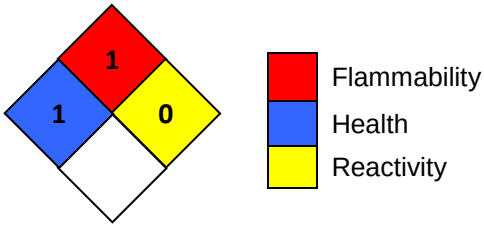
US. Rhode Island RTK: No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Australia Industrial Chem. Act (AIIC):	On or in compliance with the inventory.
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.
Thailand DIW Existing Chemical Inv. List:	On or in compliance with the inventory.
Vietnam National Chemical Inventory:	On or in compliance with the inventory.

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

NFPA Hazard ID:



☐ Special hazard.

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.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.

Issue Date: 10/31/2022

Version #: 1.2

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.