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 CATA SPU **Product No.:** PRCO90039344

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

Identified uses: Catalyst Curing agent.
Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:
Elkem Siliconi Italia Srl
via Archimede, 602
I-21042 Caronno Pertusella
ITALY

Telephone: +39 (02) 964 141
Fax: +39 (02) 96450209

E-mail: fds.sil@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:

Physical Hazards:

Flammable liquids	Category 4	H227: Combustible liquid.

Health Hazards:

Serious eye irritation	Category 2A	H319: Causes serious eye irritation.
Skin sensitizer	Category 1	H317: May cause an allergic skin reaction.
Germ Cell Mutagenicity	Category 2	H341: Suspected of causing genetic defects.
Toxic to reproduction	Category 1B	H360Df: May damage the unborn child. Suspected of damaging fertility.
Specific Target Organ Toxicity - Single Exposure	Category 1	H370: Causes damage to organs.
Specific Target Organ Toxicity - Repeated Exposure	Category 1	H372: Causes damage to organs through prolonged or repeated exposure.

Environmental Hazards:

Acute hazards to the aquatic environment	Category 1	H400: Very toxic to aquatic life.
Chronic hazards to the aquatic environment	Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label Elements:

Hazard pictograms:

Signal Word: Danger

Hazard statements:
H227: Combustible liquid.
H319: Causes serious eye irritation.
H317: May cause an allergic skin reaction.
H341: Suspected of causing genetic defects.
H360Df: May damage the unborn child. Suspected of damaging fertility.
H360FD: May damage fertility. May damage the unborn child.
H370: Causes damage to organs.
H372: Causes damage to organs through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P281: Use personal protective equipment as required.

Response:
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P391: Collect spillage.

Disposal:
P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

2.3 Other hazards which do not result in GHS classification:

No other information noted.

Substance(s) formed under the conditions of use:

Chemical name	Concentration	CAS number	Classification
Propan-1-ol	<20.5%	71-23-8	None known.

* 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.

3. Composition/information on ingredients

Mixtures:

General information:
Mixture of additives.

Hazardous Component(s):

Chemical name	Concentration *	Type	CAS number	Classification
Dibutyltin dilaurate	50 - <100%	Component	77-58-7	Skin Sens. 1 H317; Eye Dam. 2A H319; Muta. 2 H341; STOT SE 1 H370; STOT RE 1 H372; Repr. 1B H360FD; Aquatic Acute 1 H400; Aquatic Chronic 1 H410;
2-Ethylhexanoic acid	10 - <25%	Component	149-57-5	Repr. 2 ; ED 1 ; Acute Tox. 4 ; None known.
Silicic acid , tetrapropyl ester	10 - <25%	Component	682-01-9	Skin Irrit. 2 H315; STOT SE 3 H335 H336;

* 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:
Show this Safety Data Sheet to the attending physician.

4.1 Description of first aid measures:

Inhalation:
Under normal conditions of intended use, this material is not expected to be an inhalation hazard. 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:
Immediately flush with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

Ingestion:
Do not induce vomiting. Rinse mouth thoroughly with water. Do not give victim anything to drink if he is unconscious. Get medical attention immediately. Immediately call a POISON CENTER/doctor.

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. Due to the irritant properties of this product, ingestion may lead to burning or ulcers in the mouth, stomach and gastrointestinal tract, followed by stenosis. Most important symptoms/effects: Respiratory discomfort, Burning, Itching.

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:
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. 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:

Dibutyltin dilaurate

Type	Exposure Limit Values		Source	Date	Remarks
PEL	-	0.1 mg/m3	OSHA Z1	02 2006	as Sn
STEL	-	0.2 mg/m3	ACGIH	2008	as Sn
TWA	-	0.1 mg/m3	OSHA Z1A	1989	as Sn
SKIN_DES	-	-	NIOSH	2005	Can be absorbed through the skin. as Sn
SKIN_FINAL	-	-	OSHA Z1A	1989	Can be absorbed through the skin. as Sn
TWA	-	0.1 mg/m3	ACGIH	2008	as Sn
REL	-	0.1 mg/m3	NIOSH	2005	as Sn
IDLH	-	25 mg/m3	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria
SKIN_DES	-	-	ACGIH	03 2019	Danger of cutaneous absorption as Sn

2-Ethylhexanoic acid

Type	Exposure Limit Values		Source	Date	Remarks
TWA	-	5 mg/m3	ACGIH	2008	Inhalable fraction and vapor.

Additional exposure limits under the conditions of use:

Propan-1-ol

Type	Exposure Limit Values		Source	Date	Remarks
REL	200 ppm	500 mg/m3	NIOSH	2005	
SKIN_DES	-	-	NIOSH	2005	Can be absorbed through the skin.
STEL	250 ppm	625 mg/m3	OSHA Z1A	1989	
STEL	250 ppm	625 mg/m3	NIOSH	2005	
PEL	200 ppm	500 mg/m3	OSHA Z1	02 2006	
TWA	100 ppm	-	ACGIH	2008	
TWA	200 ppm	500 mg/m3	OSHA Z1A	1989	
IDLH	800 ppm	-	NIOSH IDLH	10 2017	IDLH values based on the 1994 Revised Criteria

8.2 Exposure controls:

Appropriate Engineering Controls:
Provide adequate ventilation. In case of inadequate ventilation: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment:
Avoid inhalation of vapors/aerosols/dusts and contact with skin and eyes. 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:	Wear safety glasses with side shields (or goggles).
Hand Protection:	Impervious Protective Gloves
Skin and Body Protection:	Wear suitable protective clothing.
Respiratory Protection:	If ventilation is insufficient, suitable respiratory protection must be provided.

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:	Slightly viscous
Color:	Colorless to pale yellow
Odor:	Alcohol
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:	85 °C / 185 °F (Closed cup according to method ASTM D56.)
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:	Approximate 0.95 kg/dm3 (20 °C)
Solubility(ies):	
Solubility in Water:	Practically Insoluble
Solubility (other):	Acetone: Miscible (in all proportions). Aliphatic hydrocarbons: Miscible (in all proportions). Ethanol: 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:	Approximate 10 mm2/s (25 °C)

9.2 Other information:

Dynamic viscosity:	Approximate 9.5 mPa.s (25 °C)
Oxidizing properties:	According to the data on the components Not considered as oxidizing.

(evaluation by structure-activity relationship)

Particle Size: Not applicable

10. Stability and reactivity

10.1 Reactivity:

No data available.

10.2 Chemical Stability:

Stable

10.3 Possibility of hazardous reactions:

Will not occur.

10.4 Conditions to avoid:

None known.

10.5 Incompatible Materials:

Strong oxidizing agents. Water, moisture.

10.6 Hazardous Decomposition Products:

Thermal decomposition may liberate oxides of carbon, tin and amorphous silica. During use or in contact with water, may generate hazardous substances.

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:
DIBUTYLTIN DILAURATE (*77-58-7*):
NOAEL: 0.6 - 0.8 mg/kg ; (Rat ; Female, Male ; Feed (Oral)) ; Method: According to a standardised method. ; Results obtained on a similar product. Subacute exposure.

2-ETHYLHEXANOIC ACID (*149-57-5*):
NOAEL: 300 mg/kg ; (Rat ; Female, Male ; Feed (Oral)) ; Method: According to a standardised method. ; Subchronic exposure.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
NOAEL: 10 mg/kg ; (Rat ; Male) ; Method: OECD 422 ; Results obtained on a similar product.
NOAEL: 50 mg/kg ; (Rat ; Female) ; Method: OECD 422 ; Results obtained on a similar product.
NOAEL: 426 mg/m3 ; (Mouse ; Inhalation - vapor) ; Method: OECD 412 ; Results obtained on a similar product.

Skin Corrosion/Irritation:

Based on our knowledge of the composition information:
2-ETHYLHEXANOIC ACID (*149-57-5*):
Not irritating Not irritating (Rabbit) ; Method: OECD 404

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Non-Irritating Not irritating (Rabbit) ; Method: OECD 404

Serious Eye Damage/Eye Irritation:

Based on our knowledge of the composition information: Causes serious eye irritation.
DIBUTYLTIN DILAURATE (*77-58-7*):
Causes serious eye irritation. Irritant. (Rabbit)

2-ETHYLHEXANOIC ACID (*149-57-5*):
Not irritating Not irritating (Rabbit) ; Method: OECD 405

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Non-Irritating Not irritating (Rabbit) ; Method: OECD 405

Respiratory or Skin Sensitization:

Based on our knowledge of the composition information: May cause an allergic skin reaction.
DIBUTYLTIN DILAURATE (*77-58-7*):
Skin sensitization: Skin sensitizer (Guinea Pig) ; Method: OECD 406 ; Results obtained on a similar product.

2-ETHYLHEXANOIC ACID (*149-57-5*):
Skin sensitization: Not a skin sensitizer. ; Not a skin sensitizer. (Guinea Pig) ; Method: OECD 406

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Skin sensitization: Not a skin sensitizer. ; Not sensitising (Guinea pig) ; Method: OECD 406

Germ Cell Mutagenicity:

In vitro: Based on our knowledge of the composition information: Suspected of causing genetic defects.
DIBUTYLTIN DILAURATE (*77-58-7*):
Bacteria: No mutagenic effect. (Salmonella typhimurium and Escherichia coli ; with and without metabolic activation) ; Method: OECD 471
Chromosomal aberration: Clastogenic effect. (Human lymphocytes ; with and without metabolic activation) ; Method: OECD 473 ; Results obtained on a similar product.
In vitro gene mutations test on mammalian cells: No mutagenic effect. (Chinese hamster lung cells ; with and without metabolic activation) ; Method: OECD 476 ; Results obtained on a similar product.

2-ETHYLHEXANOIC ACID (*149-57-5*):
Bacterial reverse mutation test: No mutagenic effect. (Salmonella typhimurium and Escherichia coli ; with and without metabolic activation) ; Method: OECD 471
In vitro gene mutations test on mammalian cells: No mutagenic effect. (Chinese hamster ovary cells ; with and without metabolic activation) ; Method: OECD 476
In vitro gene mutations test on mammalian cells: No mutagenic effect. (Mouse lymphoma cells ; with and without metabolic activation) ; Method: OECD 476
In vitro mammalian chromosomal aberration test: No clastogenic effect. (Mammalian peripheral blood lymphocytes ; with and without metabolic activation) ; Method: OECD 473

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Bacteria: negative (Salmonella typhimurium) ; Method: OECD 471
Chromosomal aberration: negative (Chinese hamster ovary cells) ; Method: OECD 473 ; Results obtained on a similar product.
In vitro gene mutations test on mammalian cells: negative (Chinese hamster ovary cells) ; Method: OECD 476 ; Results obtained on a similar product.

In vivo: Based on our knowledge of the composition information: Suspected of causing genetic defects.
DIBUTYLTIN DILAURATE (*77-58-7*):
Mammalian erythrocyte micronucleus test: Mutagen. (Mouse ; Female, Male ; Oral) ; Method: OECD 474 ; Results obtained on a similar product.

2-ETHYLHEXANOIC ACID (*149-57-5*):
Mammalian erythrocyte micronucleus test: No mutagenic effect. (Mouse ; Female, Male ; Gavage (Oral)) ; Method: OECD 474

Carcinogenicity:

Based on our knowledge of the composition information:
SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Not classified
No carcinogenic effects observed.

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 the unborn child. Suspected of damaging fertility.
DIBUTYLTIN DILAURATE (*77-58-7*):
May damage fertility.
NOAEL (parent): 1.7 - 2.4 mg/kg ; NOAEL (F1): None. ; NOAEL (F2): None. (Rat ; Female, Male ; Gavage (Oral)) ; Method: OECD 421 ; Results obtained on a similar product.

2-ETHYLHEXANOIC ACID (*149-57-5*):
Suspected of damaging the unborn child.
NOAEL (parent): 800 mg/kg ; NOAEL (F1): 800 mg/kg ; NOAEL (F2): None. (Rat ; Female, Male ; Ingestion) ; Method: OECD 443 ; No effect observed up to the highest dose tested.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Not classified
NOAEL (parent): 50 mg/kg ; NOAEL (F1): >= 100 mg/kg ; NOAEL (F2): None. (Rat ; Female ; Gavage (Oral)) ; Method: OECD 422 ; Results obtained on a similar product.
NOAEL (parent): 10 mg/kg NOAEL (F1): None. ; NOAEL (F2): None. (Rat ; Male ; Gavage (Oral)) ; Method: OECD 422 ; Results obtained on a similar product.

Teratogenicity: Based on our knowledge of the composition information: May damage the unborn child. Suspected of damaging fertility.
DIBUTYLTIN DILAURATE (*77-58-7*):
May damage the unborn child.
NOAEL (terato): < 50.5 mg/kg ; NOAEL (mater): < 50.5 mg/kg (Rat ; Gavage (Oral))

2-ETHYLHEXANOIC ACID (*149-57-5*):
Not classified
NOAEL (terato): 100 mg/kg ; NOAEL (mater): 250 mg/kg (Rat ; Female ; Gavage (Oral)) ; Method: OECD 414 ; The product is considered to be toxic for development.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Not classified
NOAEL (terato): >= 100 mg/kg ; NOAEL (mater): 50 mg/kg (Rat ; Gavage (Oral)) ; Method: OECD 422 ; Results obtained on a similar product.

Specific Target Organ Toxicity - Single Exposure:

Based on our knowledge of the composition information: Causes damage to organs.
DIBUTYLTIN DILAURATE (*77-58-7*):
Causes damage to organs. Target Organ(s): thymus
Corrosive to the respiratory tract.

2-ETHYLHEXANOIC ACID (*149-57-5*):
Not classified

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Not classified

Specific Target Organ Toxicity - Repeated Exposure:

Based on our knowledge of the composition information: Causes damage to organs through prolonged or repeated exposure.
DIBUTYLTIN DILAURATE (*77-58-7*):
Causes damage to organs through prolonged or repeated exposure. Oral: Target Organ(s): thymus

2-ETHYLHEXANOIC ACID (*149-57-5*):
Not classified

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Not classified

Aspiration Hazard:

Based on our knowledge of the composition information:
2-ETHYLHEXANOIC ACID (*149-57-5*):
Not classified

12. Ecological information

12.1 Ecotoxicity:

Acute toxicity: Very toxic to aquatic life.

Fish: Based on our knowledge of the composition information:
DIBUTYLTIN DILAURATE (*77-58-7*):
LC 50 (Zebra Fish; 96 h ; Static) : > 100 mg/l ; Method: OECD 203

2-ETHYLHEXANOIC ACID (*149-57-5*):
LC 50 (Oryzias latipes; 96 h ; semi-static) : > 100 mg/l ; Method: OECD 203 ; No mortality observed at this concentration.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):

LC 50 (Danio rerio; 96 h) : > 245 mg/l ; Method: OECD 203 ; Results obtained on a similar product.
NOEC (Danio rerio; 96 h) : >= 245 mg/l ; Method: OECD 203 ; Results obtained on a similar product.

Aquatic Invertebrates: Based on our knowledge of the composition information:
DIBUTYLTIN DILAURATE (*77-58-7*):
EC 50 (Water flea (Daphnia magna); 48 h ; Static) : < 1 mg/l ; Method: OECD 202

2-ETHYLHEXANOIC ACID (*149-57-5*):
EC 50 (Water flea (Daphnia magna); 48 h) : 910 mg/l ; Method: OECD 202 ; Results obtained on a similar product.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
EC 50 (Daphnia magna; 48 h) : > 75 mg/l ; Method: OECD 202 ; Results obtained on a similar product.
NOEC (Daphnia magna; 48 h) : >= 75 mg/l ; Method: OECD 202 ; Results obtained on a similar product.

Aquatic plants: Based on our knowledge of the composition information:
DIBUTYLTIN DILAURATE (*77-58-7*):
ErC50 (Green algae; 72 h ; Static) : > 1 mg/l ; Method: OECD 201

2-ETHYLHEXANOIC ACID (*149-57-5*):
ErC50 (Algae (Pseudokirchneriella subcapitata); 96 h ; Static) : 485.1 mg/l ; Method: According to a standardised method. ; Results obtained on a similar product.
ErC10 (Algae (Pseudokirchneriella subcapitata); 96 h ; Static) : 231.2 mg/l ; Method: According to a standardised method. ; Results obtained on a similar product.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
EC 50 (Algae (Pseudokirchneriella subcapitata); 72 h) : > 100 mg/l ; Method: OECD 201 ; Results obtained on a similar product.
NOEC (Algae (Pseudokirchneriella subcapitata); 72 h) : >= 100 mg/l ; Method: OECD 201 ; Results obtained on a similar product.

Toxicity to microorganisms: Based on our knowledge of the composition information:
2-ETHYLHEXANOIC ACID (*149-57-5*):
EC 50 (Pseudomonas putida; 17 h ; Static) : 112.1 mg/l
EC 10 (Pseudomonas putida; 17 h ; Static) : 71.7 mg/l

Chronic Toxicity: Very toxic to aquatic life with long lasting effects.

Fish: No data available.

Aquatic Invertebrates: Based on our knowledge of the composition information:
2-ETHYLHEXANOIC ACID (*149-57-5*):
EC 10 (Water flea (Daphnia magna); 21 d ; semi-static) : 19.9 mg/l ; Method: According to a standardised method. ; Results obtained on a similar product.

12.2 Persistence and Degradability:

Biodegradation: Based on our knowledge of the composition information:
DIBUTYLTIN DILAURATE (*77-58-7*):
23 % (activated sludge, domestic (adaptation not specified) ; 39 d ; Oxygen depletion) ; Method: OECD 301 F ; The product is not readily biodegradable.

2-ETHYLHEXANOIC ACID (*149-57-5*):
99 % (activated sludge, domestic (adaptation not specified) ; 28 d ; Dissolved organic carbon (DOC)) ; Method: OECD 301 E ; The 10-day window requirement is fulfilled.; The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
98 % (28 d ; Dissolved organic carbon (DOC)) ; Readily biodegradable Results obtained on a similar product.

BOD/COD Ratio: No data available.

12.3 Bioaccumulative potential:

Bioconcentration Factor (BCF): Based on our knowledge of the composition information:
DIBUTYLTIN DILAURATE (*77-58-7*):
Bioconcentration Factor (BCF): 812.83 (Crucian carp (Carassius carassius) ; 7 d) ; Method: OECD 305

2-ETHYLHEXANOIC ACID (*149-57-5*):
Bioconcentration Factor (BCF): < 4 ; Method: Structure-activity relationship (SAR) ; Potential to bioaccumulate is low.

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Potential to bioaccumulate is low.

Partition coefficient (n-octanol/water): Based on our knowledge of the composition information:
DIBUTYLTIN DILAURATE (*77-58-7*):
Log Kow: 4.44 (20.8 °C) ; Method: OECD 107

2-ETHYLHEXANOIC ACID (*149-57-5*):
Log Kow: 2.7 (25 °C) ; Method: OECD 107

SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Log Kow: 3.4 (20 °C) ; Method: QSAR

12.4 Mobility in soil:

Based on our knowledge of the composition information:
SILICIC ACID , TETRAPROPYL ESTER (*682-01-9*):
Negligible

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

14.1 UN number or ID number:	UN 3082
14.2 UN Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.
14.3 Transport Hazard Class(es):	
Class:	9
Label(s):	9
EmS No.:	171,
14.4 Packing Group:	III
14.5 Environmental hazards:	Marine pollutant
14.6 Special precautions for user:	None.

IMDG / IMO

14.1 UN number or ID number:	UN 3082
14.2 UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport Hazard Class(es):	
Class:	9
Label(s):	9
EmS No.:	F-A , S-F
14.4 Packing Group:	III
14.5 Environmental hazards:	Marine pollutant
14.6 Special precautions for user:	None.

14.7 Maritime transport in bulk according to IMO instruments: Not applicable

IATA

14.1 UN number or ID number:	UN 3082
14.2 Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.
14.3 Transport Hazard Class(es):	
Class:	9
Label(s):	9MI
14.4 Packing Group:	III
14.5 Environmental hazards:	Dangerous for the environment.
14.6 Special precautions for user:	None.
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

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:
Combustible liquids, Serious eye damage or eye irritation, Respiratory or Skin Sensitization, Germ Cell Mutagenicity, Reproductive toxicity, Specific target organ toxicity (single or repeated exposure)

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

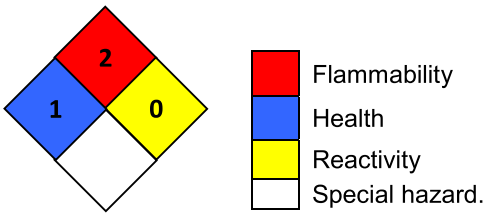
US. Rhode Island RTK: No ingredient regulated by RI Right-to-Know Law present.

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.
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.
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:

H227	Combustible liquid.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Issue Date: 09/29/2022

Version #: 3.0

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.