

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: SILBIONE RES 76405

Product No.: PRCO90000875

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

Identified uses: Non-stick coating.

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet:

Manufacturer:

Elkem Silicones France SAS
1-55 rue des Frères Perret
F-69192 SAINT FONS Cedex
FRANCE

Telephone: +33 (0) 4 72 73 74 75

Fax: +33 (0) 4 72 73 75 99

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 2	H225: Highly flammable liquid and vapor.
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Health Hazards:

Skin Corrosion/Irritation	Category 2	H315: Causes skin irritation.
Toxic to reproduction	Category 2	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
Specific Target Organ Toxicity - Single Exposure	Category 3	H336: May cause drowsiness or dizziness. (Target Organs: Narcotic effect.)
Specific Target Organ Toxicity - Repeated Exposure	Category 2	H373: May cause damage to organs through prolonged or repeated exposure.

Environmental Hazards:

Chronic hazards to the aquatic environment

Category 3

H412: Harmful to aquatic life with long lasting effects.

2.2 Label Elements:

Hazard pictograms:



Signal Word:

Danger

Hazard statements:

H225: Highly flammable liquid and vapor.
H315: Causes skin irritation.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H336: May cause drowsiness or dizziness.
H373: May cause damage to organs through prolonged or repeated exposure.
H412: Harmful 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.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical, ventilating and lighting equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P273: Avoid release to the environment.
P281: Use personal protective equipment as required.

Response:

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P332+P313: If skin irritation occurs: Get medical advice/attention.
P321: Specific treatment (see supplemental first aid instructions on this label).
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

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.

3. Composition/information on ingredients

Mixtures:

General information:

Solution of polyorganosiloxane resin.

Hazardous Component(s):

Chemical name	Concentration *	Type	CAS number	Classification
Toluene	25 - <50%	Component	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;
Octamethylcyclotetrasiloxane	0.25 - <1%	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:

Show this Safety Data Sheet to the attending physician.

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. Remove from the source of contamination or move to fresh air. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Get medical attention.

Skin Contact:

Wash skin thoroughly with soap and water. Get medical attention if symptoms occur. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

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 persist.

In the event of contact with the eyes, rinse thoroughly with clean water for at least 15 minutes. Get medical attention if irritation persists after washing.

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.

If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention.

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.
None known.

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

No specific recommendations.

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

5. Fire-fighting measures**General Fire Hazards:**

Vapors may travel considerable distance to a source of ignition and flash back. Containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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:

Flammable liquid. 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:**

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Do not breathe vapor. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.

6.2 Environmental precautions:

Collect spillage. Do not discharge into drains, water courses or onto the ground.
Spills may be reportable to the National Response Center (800-424-8802), and to state and/or local agencies.

6.3 Methods and material for containment and cleaning up:

Use non-sparking tools. Absorb with sand or other inert absorbent and place into containers.

6.4 Reference to other sections:

Caution: Contaminated surfaces may be slippery. For waste disposal, see section 13 of the SDS.

7. Handling and storage

7.1 Precautions for safe handling:

Precautions:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. In partly emptied containers formation of explosive mixture is possible. Nitrogen blanketing of containers is recommended. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Use spark-proof tools and/or explosion-proof equipment. 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 original tightly closed container. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Keep in properly labelled containers. Nitrogen blanketing of containers is recommended.

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:

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/m3	NIOSH	2005	
REL	100 ppm	375 mg/m3	NIOSH	2005	
TWA	100 ppm	375 mg/m3	OSHA Z1A	1989	
TWA	20 ppm	-	ACGIH	2008	
STEL	150 ppm	560 mg/m3	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	

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
0.03 mg/l (Urine)	toluene (Sampling time: End of shift.)	ACGIH BEI	03 2013

8.2 Exposure controls:

Appropriate Engineering Controls:

Use explosion-proof ventilation equipment to stay below exposure limits. 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. Avoid inhalation of vapors, mists or dusts.

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.

Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist.

Eye/face protection:	Chemical goggles and face shield are recommended.
Hand Protection:	Protective gloves are recommended.
Skin and Body Protection:	Wear suitable protective clothing.
Respiratory Protection:	If ventilation is insufficient, suitable respiratory protection must be provided. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to fumes at levels exceeding the exposure limits.

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:	Strong
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:	110 °C Approximate
Flash Point:	6 °C / 43 °F (Closed cup according to method Afnor T

Flammability:	60103.) Toluene
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	7 %(V) Toluene
Vapor pressure:	1.2 %(V) Toluene
Relative vapor density:	30 hPa (20 °C) Toluene
Evaporation Rate:	1.065 (20 °C)
Density:	No data available.
Solubility(ies):	Approximate 1.07 kg/dm3 (20 °C)
Solubility in Water:	Very slightly soluble
Solubility (other):	Aliphatic hydrocarbons: Miscible (in all proportions). Chlorinated solvents: Miscible (in all proportions). Aromatic hydrocarbons: Miscible (in all proportions). Acetone: Miscible (in all proportions).
Partition coefficient (n-octanol/water):	No data available.
Self-ignition:	552 °C Toluene
Decomposition Temperature:	No data available.
Kinematic viscosity:	Approximate 50 mm2/s (25 °C)

9.2 Other information:

Dynamic viscosity:	Approximate 50 mPa.s (25 °C)
Oxidizing properties:	Not considered as oxidizing. Expert statement.
Particle Size:	Not applicable

10. Stability and reactivity

10.1 Reactivity:

No other information noted.

10.2 Chemical Stability:

Stable

10.3 Possibility of hazardous reactions:

Will not occur.

10.4 Conditions to avoid:

No other information noted. Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible Materials:

Strong oxidizing agents.

10.6 Hazardous Decomposition Products:

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:*****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

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: Causes skin irritation.*****TOLUENE (108-88-3):***

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

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

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

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

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

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:**

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

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

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

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

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:**Based on our knowledge of the composition information:****TOLUENE (108-88-3):**

Not classified

The product is not considered to be carcinogenic. NOAEC: ≥ 4.522 mg/l (Rat ; Inhalation - vapor) ;

Method: Similar to OECD 453

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 1910.1001-1053), 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.

Suspected of damaging the unborn child.

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

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. Suspected of damaging the unborn child.

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.

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: May cause drowsiness or dizziness.

TOLUENE (108-88-3):

May cause drowsiness or dizziness.

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: May cause damage to organs through prolonged or repeated exposure.

TOLUENE (108-88-3):

May cause damage to organs through prolonged or repeated exposure. Target Organ(s): Nervous System

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2):

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

Aspiration Hazard:

Based on our knowledge of the composition information:

TOLUENE (108-88-3):

May be fatal if swallowed and enters airways.

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, experimental data).

12.1 Ecotoxicity:**Acute toxicity:**

Fish: Based on our knowledge of the composition information:

TOLUENE (108-88-3):

LC 50 (Coho salmon; 96 h ; Flow through) : 5.5 mg/l

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:

TOLUENE (108-88-3):

EC 50 (Water flea (Ceriodaphnia dubia); 48 h ; semi-static) : 3.78 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:

TOLUENE (108-88-3):

NOEC (biomass) (Skeletonema costatum; 72 h ; Static) : 10 mg/l ; Method: OECD 201

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: Harmful to aquatic life with long lasting effects.

Fish: Based on our knowledge of the composition information:

TOLUENE (108-88-3):

NOEC (growth rate) (Coho salmon; 40 d ; Flow through) : 1.4 mg/l

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:

TOLUENE (108-88-3):

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

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:

TOLUENE (108-88-3):

69 % ; The product is easily 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:*TOLUENE (108-88-3):*

Bioconcentration Factor (BCF): 90 ; Potential to bioaccumulate is low.

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

Log Kow: 2.73

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. Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability.

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.

Waste code:

EPA RCRA HAZARDOUS WASTE CODE: D001

14. Transport information

DOT

14.1 UN number or ID number:	UN 1866
14.2 UN Proper Shipping Name:	Resin solution
14.3 Transport Hazard Class(es):	
Class:	3
Label(s):	3
EmS No.:	127,

14.4 Packing Group:	II
14.5 Environmental hazards:	No
14.6 Special precautions for user:	None.

IMDG / IMO

14.1 UN number or ID number:	UN 1866
14.2 UN Proper Shipping Name:	RESIN SOLUTION
14.3 Transport Hazard Class(es):	
Class:	3
Label(s):	3
EmS No.:	F-E , S-E
14.4 Packing Group:	II
14.5 Environmental hazards:	No
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 1866
14.2 Proper Shipping Name:	Resin solution
14.3 Transport Hazard Class(es):	
Class:	3
Label(s):	3
14.4 Packing Group:	II
14.5 Environmental hazards:	No
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):

<u>Chemical Identity:</u>	<u>Reportable quantity:</u>
Toluene	1000 lbs

Superfund Amendments and Reauthorization Act of 1986 (SARA):

Hazard categories:

Flammable liquids, Skin Corrosion/Irritation, Toxic to reproduction, Specific target organ toxicity (single or repeated exposure)

Flammable (gases, aerosols, liquids, or solids), Skin Corrosion or Irritation, Reproductive toxicity, Specific target organ toxicity (single or repeated exposure), Hazards Not Otherwise Classified (HNOC)

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:

<u>Chemical Identity:</u>	<u>Reporting threshold for other users:</u>	<u>Reporting threshold for manufacturing and processing:</u>
Toluene	10000 lbs	25000lbs

US State Regulations:

US. California Proposition 65:



This product can expose you to chemicals including: Toluene (49.2915%) 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.

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

Chemical Identity:

Toluene

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

US. Pennsylvania RTK - Hazardous Substances:

Chemical Identity:

Toluene

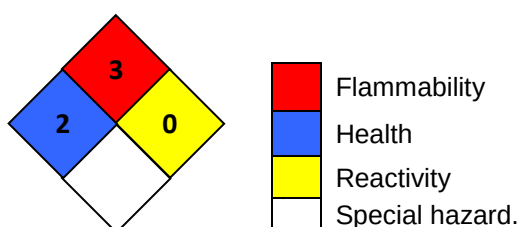
US. Rhode Island RTK: No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Canada NDSL 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.
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.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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.

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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.