SAFETY DATA SHEET

1. Identification

Product identifier: BLUESIL RES 6405

Recommended use and restriction on use

Recommended use: Paint.
Restrictions on use: None known.

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name:	Elkem Silicones France SAS
Address:	1-55 rue des Frères PERRET F-69 192 SAINT FONS Cedex
Telephone:	+33 (0) 4 72 73 74 75
Fax:	+33 (0) 4 72 73 75 99
Contact Person:	
E-mail:	fds.sil@elkem.com

Supplier

Company Name:	Elkem Silicones USA Corp.
Address:	Two Tower Blvd, Suite 1601 08816-1100 East Brunswick, NJ
Telephone:	+1 (732) 227-2060
Fax:	+1 (732) 249-7000

Emergency telephone number: +1 (800) 424-9300 CHEMTREC

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids	Category 2

Health Hazards

Skin irritation	Category 2
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 3
Specific Target Organ Toxicity - Repeated Exposure	Category 2

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement: Highly flammable liquid and vapor.
Causes skin irritation.
May cause drowsiness or dizziness.
Suspected of damaging the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/…] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

Storage: Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: Meets PBT (persistent/bioaccumulative/toxic) criteria Meets vPvB criteria

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Toluene	108-88-3	40 - <50%
Octamethylcyclotetrasiloxane	556-67-2	0.1 - <1%

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

Composition Comments: Solution of polyorganosiloxane resin.

4. First-aid measures

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

Ingestion: Do not induce vomiting. Rinse mouth thoroughly. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention.

Inhalation: Move into fresh air and keep at rest. 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:	Remove contaminated clothing and shoes. Wash with soap and water. 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. Continue to rinse for at least 15 minutes. 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.

Most important symptoms/effects, acute and delayed

Symptoms:	None known.

Indication of immediate medical attention and special treatment needed

Treatment:	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.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Extinguish with foam, carbon dioxide or dry powder.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Flammable. Hazardous Decomposition Products : formaldehyde, oxides of carbon and silica.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	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

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.
Methods and material for containment and cleaning up:	Use non-sparking tools. Absorb with sand or other inert absorbent and place into containers.
Notification Procedures:	Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

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.

7. Handling and storage

Precautions for safe handling: Use explosion-proof electrical/ventilating/lighting/equipment. Ground container and transfer equipment to eliminate static electric sparks. Avoid forming spray/aerosol mists. See Section 8 of the SDS for Personal Protective Equipment.

Conditions for safe storage, including any incompatibilities: Store in original tightly closed container. Store in a cool, dry place with adequate ventilation. Avoid heat, sparks, open flames and other ignition sources. Nitrogen blanketing of containers is recommended.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Toluene	TWA	20 ppm	US. ACGIH Threshold Limit Values (01 2010)
	REL	100 ppm 375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	150 ppm 560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm 375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	150 ppm 560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	200 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	Ceiling	300 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Toluene (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (01 2010)
Toluene (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (01 2010)
Toluene (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (01 2010)

Appropriate Engineering Controls Use explosion-proof ventilation equipment.

Individual protection measures, such as personal protective equipment

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

Eye/face protection: Safety Glasses.

Skin Protection
Hand Protection: Protective gloves are recommended.

Other:	Wear appropriate clothing to prevent any possibility of skin contact.
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.
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.

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
Odor threshold:	No data available.
pH:	Not applicable
Freezing point:	No data available.
Boiling Point:	230 °F (110 °C) Approximate
Flash Point:	43 °F (6 °C) (Closed cup according to method Afnor T 60103.) Toluene
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability limit - upper (%):	7 %(V) Toluene
Flammability limit - lower (%):	1.2 %(V) Toluene
Vapor pressure:	30 hPa (68 °F (20 °C)) Toluene
Vapor density:	1.065
Density:	Approximate 1.07 kg/dm3 (68 °F (20 °C))
Solubility(ies)	
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.
Auto-ignition temperature:	1026 °F (552 °C) Toluene
Decomposition temperature:	No data available.
Viscosity:	50 mm2/s (77 °F (25 °C))
Other information	
Oxidizing properties:	Not considered as oxidizing. Expert statement.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Stable

Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides, other toxic gases or vapors and amorphous silica.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	No data available.

Dermal

Product:	No data available.

Inhalation

Product:	No data available.
Specified substance(s):	
Toluene	LC 50 (Rat, 4 h): 28.1 mg/l
Octamethylcyclotetrasiloxane	LC 50 (Rat, 4 h): 36 mg/l

Repeated dose toxicity

Product:	No data available.
Specified substance(s):	
Toluene	NOAEL (Rat, Ingestion): 625 mg/kg NOAEL (Rat, Inhalation): 2,261 mg/kg
Specified substance(s):	
Octamethylcyclotetrasilox	NOAEL (Rat, Inhalation): 1.820 mg/l

ane	NOAEL (Rabbit, Dermal): 960 mg/kg

Skin Corrosion/Irritation

Product: Causes skin irritation.

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):	
Toluene	(Rabbit): Not irritating
Specified substance(s):	
Octamethylcyclotetrasiloxane	(Rabbit, 24 h): Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):	
Toluene	(Guinea Pig)Not a skin sensitizer.
Specified substance(s):	
Octamethylcyclotetrasiloxane	(Guinea Pig)Not a skin sensitizer.

Carcinogenicity

Product:	No data available.
Specified substance(s):	
Toluene	Not classified
Specified substance(s):	
Octamethylcyclotetrasiloxane	No effects expected.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product:	No data available.
Specified substance(s):	
Toluene	Bacteria: No mutagenic components identified.
Specified substance(s):	
Octamethylcyclotetrasiloxane	Bacteria: No mutagenic components identified. Chromosomal aberration: No mutagenic components identified. In vitro gene mutations test on mammalian cells:: No mutagenic components identified.

In vivo

Product:	No data available.
Specified substance(s):	
Toluene	(Rat)No mutagenic components identified.
Specified substance(s):	
Octamethylcyclotetrasiloxane	(Rat)No effects expected.

Reproductive toxicity

Product:	Suspected of damaging the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product:	May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure

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

Aspiration Hazard

Product:	No data available.
Specified substance(s):	
Octamethylcyclotetrasiloxane	No effects expected.

Other effects:	No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Specified substance(s):	
Toluene	LC 50 (Fish, 96 h): 5.5 mg/l
Octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): >= 0.022 mg/l

Aquatic Invertebrates

Product:	No data available.

Specified substance(s):

Toluene	EC 50 (Water flea (Daphnia magna), 48 h): 3.78 mg/l
Octamethylcyclotetrasiloxane	EC 50 (Water flea (Daphnia magna), 48 h): > 0.015 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Toluene	NOEC (Atlantic Salmon, 40 d): 1.39 mg/l
Octamethylcyclotetrasiloxane	NOEC (Oncorhynchus mykiss, 93 d): >= 0.0044 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Toluene	NOEC (Water flea (Daphnia magna), 7 d): 0.74 mg/l
Octamethylcyclotetrasiloxane	NOEC (Water flea (Daphnia magna), 21 d): 0.015 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Toluene	EC 50 (Alga, 3 h): 134 mg/l
Octamethylcyclotetrasiloxane	EC 50 (Green algae (Selenastrum capricornutum), 96 h): > 0.022 mg/l

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

Toluene	69 % The product is easily biodegradable.
Octamethylcyclotetrasiloxane	3.7 % (29 d) The product is not considered to be readily biodegradable.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Toluene	Bioconcentration Factor (BCF): 90 Potential to bioaccumulate is low.
Octamethylcyclotetrasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 12,400

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.

Specified substance(s):

Toluene	Log Kow: 2.73

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Toluene	No data available.
Octamethylcyclotetrasiloxane	No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: 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 packages should be as empty as possible. 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.

RCRA Information

Waste code: EPA RCRA HAZARDOUS WASTE CODE: D001

14. Transport information

DOT

UN Number:	UN 1866
UN Proper Shipping Name:	RESIN SOLUTION
Transport Hazard Class(es)	
Class:	3
Label(s):	3
Packing Group:	II
Marine Pollutant:	Not a Marine Pollutant
Special precautions for user:	–

IMDG

UN Number:	UN 1866
UN Proper Shipping Name:	RESIN SOLUTION
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-E
Packing Group:	II
Marine Pollutant:	Not a Marine Pollutant
Limited quantity	
Excepted quantity	
Special precautions for user:	–

IATA

UN Number:	UN 1866
Proper Shipping Name:	RESIN SOLUTION
Transport Hazard Class(es):	
Class:	3
Label(s):	3
Marine Pollutant:	No other information noted.
Packing Group:	II
Limited quantity	
Excepted quantity	
Special precautions for user:	–
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

Environmental hazards: Not a Marine Pollutant

Special precautions for user: No special precautions.

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):

Chemical Identity	Reportable quantity
Toluene	lbs. 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

X	Acute (Immediate)	X	Chronic (Delayed)	X	Fire		Reactive		Pressure Generating

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Toluene	lbs. 1000

SARA 313 (TRI Reporting)

Chemical Identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
Toluene		

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity	Reportable quantity
Toluene	Reportable quantity: lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including

Toluene, which is 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:

Australia AICS:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	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.
Canada NDSL Inventory:	On or in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory.

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

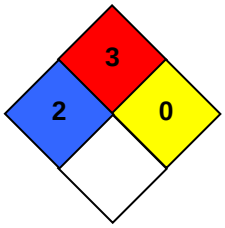
HMIS Hazard ID

Health	*	2
Flammability		3
Physical Hazards		0
PERSONAL PROTECTION		H

H - Goggles, Gloves, Apron & Vapor Respirator

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

NFPA Hazard ID



Flammability
Health
Reactivity
Special hazard.

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

Issue Date:	02/07/2019
Revision Date:	No data available.
Version #:	19.1

Further Information:	No data available.
Disclaimer:	The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.