SAFETY DATA SHEET

According to regulation (EC) n° 1907/2006 Annex II

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: MAGIC POWER GEL PART A
Synonyms, Trade Names: MAGIC POWER GEL, MAGIC POWER JOINT, POWER KIT

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:

RAYTECH S.r.l.
Via Enrico Fermi 11, 13, 17
20019 Settimo Milanese (MI) - ITALIA
Telephone: +39 (02) 33500147
Fax: +39 (02) 33500287
e-mail: info@raytech.it

Supplier:

RAYTECH S.r.l.
Via Enrico Fermi 11, 13, 17
20019 Settimo Milanese (MI) - ITALIA
Telephone: +39 (02) 33500147
Fax: +39 (02) 33500287

1.4 Emergency telephone number: +39 (02) 33500147

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

2.2 Label Elements

Not applicable

Hazard summary

Physical Hazards: No specific recommendations.

Health Hazards

Inhalation: No specific symptoms noted.
Eye contact: No specific symptoms noted.
Skin Contact: No specific symptoms noted.
Ingestion: No specific symptoms noted.

Other Health Effects: No other information noted.

Environmental Hazards: Not regarded as dangerous for the environment.

2.3 Other hazards

Meets PBT (persistent/bioaccumulative/toxic) criteria. Meets vPvB

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of organosiloxanes, additives.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Octamethylcyclotetrasiloxane	≥ 0,1 - <0,25%	556-67-2	209-136-7	01-2119529238-36-0002	No data available.	# PBT vPvB
Decamethylcyclopentasiloxane	≥ 0,1 - <0,25%	541-02-6	208-764-9	01-2119511367-43-0003	No data available.	vPvB
Dodecamethylcyclohexasiloxane	≥ 0,25 - <0,5%	540-97-6	208-762-8	01-2119517435-42-0002	No data available.	vPvB

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).

Classification

Chemical name	Classification	Notes
Octamethylcyclotetrasiloxane	Flam. Liq. 3 H226; Repr. 2 H361f; Aquatic Chronic 4 H413;	No data available.
Decamethylcyclopentasiloxane	None known.	No data available.
Dodecamethylcyclohexasiloxane	None known.	No data available.

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General: Get medical attention if symptoms occur. Contaminated clothing to be placed in closed container until disposal or decontamination.

4.1 Description of first aid measures

Inhalation: Not relevant.

Skin Contact: Remove contaminated clothing and shoes. Wash with soap and water.

Eye contact: In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed:
None known.

4.3 Indication of any immediate medical attention and special treatment needed
Hazards: No specific recommendations.

Treatment: No specific recommendations.

SECTION 5: Firefighting measures

General Fire Hazards: No specific recommendations.

5.1 Extinguishing media
Suitable extinguishing media: Extinguish with foam, carbon dioxide or dry powder. Water spray.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture: None known. For further information, refer to section 10: "Stability and Reactivity".

5.3 Advice for firefighters
Special fire fighting procedures: Water spray should be used to cool containers.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.

6.1.2 For emergency responders: No data available.

6.2 Environmental Precautions: Collect spillage. Do not discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up: Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Container must be kept tightly closed. Absorb with sand or other inert absorbent. To clean the floor and all objects contaminated by this material, use an appropriate solvent.(cf. : § 9) Flush area with plenty of water. Incinerate in suitable combustion

6.4 Reference to other sections: Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: No specific precautions.

7.2 Conditions for safe storage, including any incompatibilities: No special storage precautions noted. Material is stable under normal conditions. Avoid contact with oxidizing agents. Suitable containers: polyethylene. Plastic lined steel drum.

7.3 Specific end use(s): No specific recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Octamethylcyclotetrasiloxane	VME	10 ppm 120 mg/m3	

8.2 Exposure controls

Appropriate Engineering Controls: No specific recommendations.

Individual protection measures, such as personal protective equipment

General information: No specific precautions.

Eye/face protection: Safety Glasses.

Skin protection

Hand Protection: Material: Nitrile.
Material: Polyvinyl chloride (PVC).
Material: Rubber or plastic.

Other: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices,

Respiratory Protection: No specific precautions.

Hygiene measures: Provide eyewash station and safety shower.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Form: Gel

Color: Colourless

Odor: Odorless

Odor Threshold:	No data available.
pH:	Not applicable
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 200 °C (Closed cup according to method ASTM D56.)
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available
Flammability Limit - Lower (%):	No data available
Vapor pressure:	< 0,1 hPa (20 °C)
Vapor density (air=1):	No data available.
Density:	Approximate 1 kg/dm3 (20 °C)
Solubility(ies)	
Solubility in Water:	Practically Insoluble
Solubility (other):	Diethylether: Miscible (in all proportions). Chlorinated solvents: Miscible (in all proportions). Aromatic hydrocarbons: Miscible (in all proportions). Aliphatic hydrocarbons: Miscible (in all proportions). Acetone: Very slightly soluble. Ethanol: Very slightly soluble.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	> 400 °C
Decomposition Temperature:	> 200 °C
Viscosity:	2 500 mm^2/s (20 °C)
Explosive properties:	No data available.
Oxidizing properties:	According to the data on the components Not considered as oxidizing. (evaluation by structure-activity relationship)

9.2 Other information: No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Not relevant.
10.2 Chemical Stability:	Stable.
10.3 Possibility of hazardous reactions:	Not known.
10.4 Conditions to avoid:	No other information noted.
10.5 Incompatible Materials:	Strong oxidizing agents.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	No effects expected (assessment based on ingredients).
Ingestion:	No effects expected (assessment based on ingredients).

Skin Contact: No effects expected (assessment based on

Eye contact: No effects expected (assessment based on ingredients).

11.1 Information on toxicological effects:

Acute toxicity:

Oral:

Product: Not classified for acute toxicity based on available data.

Dermal:

Product: Not classified for acute toxicity based on available data.

Inhalation:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	LC 50 (Rat): 8,67 mg/l
octamethylcyclotetrasiloxane	LC 50 (Rat, 4 h): > 36 mg/l

Repeated dose toxicity:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxan e	NOAEL (Rat, Oral): >= 1 000 mg/kg NOAEL (Rat, Inhalation - vapor): >= 2,42 m NOAEL (Rat, Dermal): >= 1 600 mg/kg
Dodecamethylcyclohexasiloxa ne	NOAEL (Rat, Oral): >= 1 000 mg/kg Method: OECD 422 NOAEL (Rat, Inhalation - vapor): 0,0182 mg/l Method: OECD 413
octamethylcyclotetrasiloxane	NOAEL (Rat, Inhalation): 1,820 mg/l Method: OECD 453 NOAEL (Rabbit, Dermal): 960 mg/kg Method: OECD 411

Skin Corrosion/Irritation:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	Rabbit : Not irritating
Dodecamethylcyclohexasiloxa ne	OECD 404 (Rabbit) : Not irritating
octamethylcyclotetrasiloxane	Rabbit, 24 h : Not irritating

Serious Eye Damage/Eye Irritation:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	Rabbit : Not irritating
Dodecamethylcyclohexasiloxane	OECD 405 (Rabbit) : Not irritating
octamethylcyclotetrasiloxane	Rabbit, 24 h : Not irritating

Respiratory or Skin Sensitization:

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	Not a skin sensitizer.
Dodecamethylcyclohexasiloxa ne	OECD 406 (Guinea Pig) : Not a skin sensitizer.
octamethylcyclotetrasiloxane	Guinea Pig : Not a skin sensitizer.

Germ Cell Mutagenicity:

In vitro:

Product:	Composition/information on ingredie
Specified substance(s):	
Decamethylcyclopentasiloxa ne	Chromosomal aberration : No mutagenic components identified. Bacteria : No mutagenic components identified.
Dodecamethylcyclohexasilox ane	Mouse lymphoma cells (OECD 476): negative with and without metabolic activation Bacteria (OECD 471): negative with and without metabolic activation
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:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxa ne	No effects expected.
Dodecamethylcyclohexasilox ane	Mammalian erythrocyte micronucleus test (OECD 474): No mutagenic effects.
octamethylcyclotetrasiloxane	No effects expected.

Carcinogenicity:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	Rat (, Female, Male, Inhalation): (OECD 453) No effects expected.

Reproductive toxicity:

Product:	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.
octamethylcyclotetrasiloxane	Suspected of damaging fertility.

Reproductive toxicity (Fertility):

Product:	Composition/information on ingredients
Specified substance(s):	

Decamethylcyclopentasiloxane	Fertility study 2 generations. Rat (Inhalation): NOAEL (parent): 3,64 mg/l NOAEL (F1):None. NOAEL (F2): None. Method: OECD 416
Dodecamethylcyclohexasiloxa ne	Reproduction/developmental toxicity screening test. Rat (Gavage (Oral)): NOAEL (parent): >= 1 000 mg/kg NOAEL (F1):>= 1 000 mg/kg NOAEL (F2): Method: OECD 422
octamethylcyclotetrasiloxane	Fertility study 2 generations. Rat (Inhalation): NOAEL (parent): 3,64 mg/l NOAEL (F1):None. NOAEL (F2): None. Method: OECD 416

Developmental toxicity (Teratogenicity):

Product:	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxa ne	Rabbit NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): >= 1 000 mg/kg Method: OECD 414 Rat NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): >= 1 000 mg/kg Method: OECD 414
octamethylcyclotetrasiloxane	Rat (Inhalation): NOAEL (terato): > 6,066 mg/l NOAEL (mater): 3,640 mg/l Method: OECD 414

Specific Target Organ Toxicity - Single Exposure:

Product:	No data available.
Specified substance(s):	
Dodecamethylcyclohexasilox ane	Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure:

Product:	No data available.
Specified substance(s):	
Dodecamethylcyclohexasiloxa ne	Based on available data, the classification criteria are not met.

Aspiration Hazard:

Product:	No data available.
Specified substance(s):	
octamethylcyclotetrasiloxane	No effects expect

SECTION 12: Ecological information

12.1 Toxicity:

Acute toxicity:

Fish:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): >= 0,022 mg/l

Aquatic Invertebrates:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	EC 50 (Water flea (Daphnia magna), 48 h): > 0,015 mg/l

Chronic Toxicity:

Fish:

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	NOEC (Oncorhynchus mykiss, 90 d): >= 0,014 mg/l
octamethylcyclotetrasiloxane	NOEC (Oncorhynchus mykiss, 93 d): >= 0,0044 mg/l

Aquatic Invertebrates:

Product:	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxane	NOEC (Water flea (Daphnia magna), 21 d): >= 0,0046 mg/l
octamethylcyclotetrasiloxane	NOEC (Water flea (Daphnia magna), 21 d): 0,015 mg/l

Toxicity to Aquatic Plants:

Product:	Composition/information on ingredie
Specified substance(s):	
octamethylcyclotetrasiloxane	EC 50 (Green algae (Selenastrum capricornutum), 96 h): > 0,022 mg/l
Dodecamethylcyclohexasiloxane	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): >= 0,002 mg/l EC 50 (Algae (Pseudokirchneriella subcapitata), 72

12.2 Persistence and Degradability: Biodegradation:

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	0,14 % (28 d) The product is not readily biodegradable.
Dodecamethylcyclohexasiloxan e	4,5 % (28 d, OECD 310) The product is not readily biodegradable.
octamethylcyclotetrasiloxane	3,7 % (29 d) The product is not considered to be readily biodegradable.

BOD/COD Ratio:

Product: No data available.

12.3 Bioaccumulative potential:

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 7 060
Dodecamethylcyclohexasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 2 860 (OECD 305) Has the potential to bioaccumulate.
octamethylcyclotetrasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 12 400

12.4 Mobility in soil: No data available.

12.5 Results of PBT and vPvB assessment:	Composition/information on ingredients	
Decamethylcyclopentasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
Dodecamethylcyclohexasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
octamethylcyclotetrasiloxane	Meets PBT (persistent/bioaccumulative/toxic) criteria, Meets vPvB criteria	REACH (1907/2006) Ax XIII

12.6 Other adverse effects: None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

General information: The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal methods

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. Waste of this material should not be mixed with other waste.

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.

SECTION 14: Transport information

This material is not subject to transport regulations.

Other information: No special precautions.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:
none

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

Inventory Status:

Australia AICS:	On or in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.
Japan (ENCS) 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.
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.

SECTION 16: Other information

Revision Information: Not relevant.

References

PBT	PBT: persistent, bioaccumulative and toxic substance.
vPvB	vPvB: very persistent and very bioaccumulative substance.

Key abbreviations or acronyms used:
No data available.

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.

Training information: No data available.

Disclaimer: The information given is based on data available for the material, the components of the material, and similar materials. The information is believed to be correct. It is given in good faith. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

SAFETY DATA SHEET

According to regulation (EC) n° 1907/2006 Annex II

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: MAGIC POWER GEL PART B
Synonyms, Trade Names: MAGIC POWER GEL, MAGIC POWER JOINT, POWER KIT

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:

RAYTECH S.r.l.
Via Enrico Fermi 11, 13, 17
20019 Settimo Milanese (MI) - ITALIA
Telephone: +39 (02) 33500147
Fax: +39 (02) 33500287
e-mail: info@raytech.it

Supplier:

RAYTECH S.r.l.
Via Enrico Fermi 11, 13, 17
20019 Settimo Milanese (MI) - ITALIA
Telephone: +39 (02) 33500147
Fax: +39 (02) 33500287

1.4 Emergency telephone number: +39 (02) 33500147

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

2.2 Label Elements

Not applicable

Hazard summary

Physical Hazards: No specific recommendations.

Health Hazards

Inhalation: No specific symptoms noted.
Eye contact: No specific symptoms noted.
Skin Contact: No specific symptoms noted.
Ingestion: No specific symptoms noted.

Other Health Effects: No other information noted.

Environmental Hazards: Not regarded as dangerous for the environment.

2.3 Other hazards

Chemical compounds containing silicon - hydrogen bonds (SiH). This product may generate hydrogen gas. For further information, refer to section 10: "Stability and Reactivity".
Meets PBT (persistent/bioaccumulative/toxic) criteria.
Meets vPvB criteria.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of organosiloxanes, additives.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Octamethylcyclotetrasiloxane	≥ 0,5 - <1%	556-67-2	209-136-7	01-2119529238-36-0002	No data available.	# PBT vPvB
Decamethylcyclopentasiloxane	≥ 0,25 - <0,5%	541-02-6	208-764-9	01-2119511367-43-0003	No data available.	vPvB
Dodecamethylcyclohexasiloxane	≥ 0,25 - <0,5%	540-97-6	208-762-8	01-2119517435-42-0002	No data available.	vPvB

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).

Classification

Chemical name	Classification	Notes
Octamethylcyclotetrasiloxane	Flam. Liq. 3 H226; Repr. 2 H361f; Aquatic Chronic 4 H413;	No data available.
Decamethylcyclopentasiloxane	None known.	No data available.
Dodecamethylcyclohexasiloxane	None known.	No data available.

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General: Get medical attention if symptoms occur. Contaminated clothing to be placed in closed container until disposal or decontamination.

4.1 Description of first aid measures

Inhalation: Not relevant.

Skin Contact: Remove contaminated clothing and shoes. Wash with soap and water.

Eye contact: In the event of contact with the eyes, rinse thoroughly with clean water. Continue to rinse for at least 15 minutes.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed:
None known.

4.3 Indication of any immediate medical attention and special treatment needed
Hazards: No specific recommendations.

Treatment: No specific recommendations.

SECTION 5: Firefighting measures

General Fire Hazards: No specific recommendations.

5.1 Extinguishing media
Suitable extinguishing media: Foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire. Alkaline powders.

5.2 Special hazards arising from the substance or mixture: This product may generate hydrogen gas. Vapors may form explosive mixtures with air. For further information, refer to section 10: "Stability and Reactivity".

5.3 Advice for firefighters
Special fire fighting procedures: Water spray should be used to cool containers.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Wear appropriate personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep away from Alkalis and caustic products. Eliminate all sources of ignition.

6.1.2 For emergency responders: No data available.

6.2 Environmental Precautions: Collect spillage. Prevent entry into waterways, sewer, basements or confined areas. Mechanically ventilate the spillage area to prevent the formation of explosive concentrations.

6.3 Methods and material for containment and cleaning up: Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Absorb with sand or other inert absorbent. Do NOT use products which are basic. To clean the floor and all objects contaminated by this material, use an appropriate solvent.(cf. : § 9) Flush area with plenty of water.chamber.

6.4 Reference to other sections: Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Use mechanical ventilation in case of handling which causes formation of vapors. Do not mix with Incompatible materials. For further information, refer to Section 10: "Stability and Reactivity". Read and follow manufacturer's recommendations.

7.2 Conditions for safe storage, including any incompatibilities: Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Store in tightly closed original container. Suitable containers: polyethylene. Steel drums coated with epoxy-resin.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Octamethylcyclotetrasiloxane	VME	10 ppm 120 mg/m3	

8.2 Exposure controls

Appropriate Engineering Controls: Avoid inhalation of vapors and spray mists.

Individual protection measures, such as personal protective equipment

General information: Provide sufficient ventilation during operations which cause vapor formation.

Eye/face protection: Safety Glasses.

Skin protection

Hand Protection: Material: Nitrile.
Material: Polyvinyl chloride (PVC).
Material: Rubber or plastic.

Other: It is a good industrial hygiene practice to minimize skin contact. Wear suitable protective clothing.

Respiratory Protection: No specific precautions.

Hygiene measures: Provide eyewash station and safety shower.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	Liquid
Form:	Gel
Color:	Blue
Odor:	Odorless
Odor Threshold:	No data available.
pH:	Not applicable
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 200 °C (Closed cup according to method ASTM D56.)
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	74 %(V) Hydrogen.
Flammability Limit - Lower (%):	4 %(V) Hydrogen.
Vapor pressure:	< 0,1 hPa (20 °C)
Vapor density (air=1):	No data available.
Density:	Approximate 1 kg/dm3 (20 °C)
Solubility(ies)	
Solubility in Water:	Practically Insoluble
Solubility (other):	Diethylether: Miscible (in all proportions). Chlorinated solvents: Miscible (in all proportions). Aromatic hydrocarbons: Miscible (in all proportions). Aliphatic hydrocarbons: Miscible (in all proportions). Acetone: Very slightly soluble. Ethanol: Very slightly soluble.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	> 500 °C
Decomposition Temperature:	> 200 °C
Viscosity:	2 500 mm^2/s (20 °C)
Explosive properties:	No data available.
Oxidizing properties:	According to the data on the components Not considered as oxidizing. (evaluation by structure-activity relationship)

9.2 Other information: No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	No other information noted.
10.2 Chemical Stability:	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions:	This product may generate hydrogen gas.
10.4 Conditions to avoid:	No other information noted.

10.5 Incompatible Materials: A fire or explosion hazard arises because highly flammable gas (hydrogen) is released when it is in contact with : Strong oxidizing agents. Alkalis and caustic products. Chemical compounds with mobile hydrogen, in the presence of metal salts and complexes.

10.6 Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Amorphous silica.
Quantity of hydrogen potentially released (l/kg of product): <3

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation: No effects expected (assessment based on ingredients).

Ingestion: No effects expected (assessment based on ingredients).

Skin Contact: No effects expected (assessment based on

Eye contact: No effects expected (assessment based on ingredients).

11.1 Information on toxicological effects:

Acute toxicity:

Oral:

Product: Not classified for acute toxicity based on available data.

Dermal:

Product: Not classified for acute toxicity based on available data.

Inhalation:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	LC 50 (Rat): 8,67 mg/l
octamethylcyclotetrasiloxane	LC 50 (Rat, 4 h): > 36 mg/l

Repeated dose toxicity:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxan e	NOAEL (Rat, Oral): >= 1 000 mg/kg NOAEL (Rat, Inhalation - vapor): >= 2,42 m NOAEL (Rat, Dermal): >= 1 600 mg/kg
Dodecamethylcyclohexasiloxa ne	NOAEL (Rat, Oral): >= 1 000 mg/kg Method: OECD 422 NOAEL (Rat, Inhalation - vapor): 0,0182 mg/l Method: OECD 413
octamethylcyclotetrasiloxane	NOAEL (Rat, Inhalation): 1,820 mg/l Method: OECD 453 NOAEL (Rabbit, Dermal): 960 mg/kg Method: OECD 411

Skin Corrosion/Irritation:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	Rabbit : Not irritating

Dodecamethylcyclohexasiloxa ne	OECD 404 (Rabbit) : Not irritating
octamethylcyclotetrasiloxane	Rabbit, 24 h : Not irritating

Serious Eye Damage/Eye Irritation:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	Rabbit : Not irritating
Dodecamethylcyclohexasiloxane	OECD 405 (Rabbit) : Not irritating
octamethylcyclotetrasiloxane	Rabbit, 24 h : Not irritating

Respiratory or Skin Sensitization:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	Not a skin sensitizer.
Dodecamethylcyclohexasiloxa ne	OECD 406 (Guinea Pig) : Not a skin sensitizer.
octamethylcyclotetrasiloxane	Guinea Pig : Not a skin sensitizer.

Germ Cell Mutagenicity:

In vitro:

Product: Composition/information on ingredie

Specified substance(s):

Decamethylcyclopentasiloxa ne	Chromosomal aberration : No mutagenic components identified. Bacteria : No mutagenic components identified.
Dodecamethylcyclohexasilox ane	Mouse lymphoma cells (OECD 476): negative with and without metabolic activation Bacteria (OECD 471): negative with and without metabolic activation
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: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxa ne	No effects expected.
Dodecamethylcyclohexasilox ane	Mammalian erythrocyte micronucleus test (OECD 474): No mutagenic effects.
octamethylcyclotetrasiloxane	No effects expected.

Carcinogenicity:

Product: Composition/information on ingredients

Specified substance(s):

octamethylcyclotetrasiloxane	Rat (, Female, Male, Inhalation): (OECD 453) No effects expected.

Reproductive toxicity:

Product:	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxane	Based on available data, the classification criteria are not met.
octamethylcyclotetrasiloxane	Suspected of damaging fertility.

Reproductive toxicity (Fertility):

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	Fertility study 2 generations. Rat (Inhalation): NOAEL (parent): 3,64 mg/l NOAEL (F1):None. NOAEL (F2): None. Method: OECD 416
Dodecamethylcyclohexasiloxa ne	Reproduction/developmental toxicity screening test. Rat (Gavage (Oral)): NOAEL (parent): >= 1 000 mg/kg NOAEL (F1):>= 1 000 mg/kg NOAEL (F2): Method: OECD 422
octamethylcyclotetrasiloxane	Fertility study 2 generations. Rat (Inhalation): NOAEL (parent): 3,64 mg/l NOAEL (F1):None. NOAEL (F2): None. Method: OECD 416

Developmental toxicity (Teratogenicity):

Product:	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxa ne	Rabbit NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): >= 1 000 mg/kg Method: OECD 414 Rat NOAEL (terato): >= 1 000 mg/kg NOAEL (mater): >= 1 000 mg/kg Method: OECD 414
octamethylcyclotetrasiloxane	Rat (Inhalation): NOAEL (terato): > 6,066 mg/l NOAEL (mater): 3,640 mg/l Method: OECD 414

Specific Target Organ Toxicity - Single Exposure:

Product:	No data available.
Specified substance(s):	
Dodecamethylcyclohexasilox ane	Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure:

Product:	No data available.
Specified substance(s):	
Dodecamethylcyclohexasiloxa ne	Based on available data, the classification criteria are not met.

Aspiration Hazard:

Product:	No data available.
Specified substance(s):	
octamethylcyclotetrasiloxane	No effects expect

SECTION 12: Ecological information

12.1 Toxicity:

Acute toxicity:

Fish:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): >= 0,022 mg/l

Aquatic Invertebrates:

Product:	Composition/information on ingredients
Specified substance(s):	
octamethylcyclotetrasiloxane	EC 50 (Water flea (Daphnia magna), 48 h): > 0,015 mg/l

Chronic Toxicity:

Fish:

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	NOEC (Oncorhynchus mykiss, 90 d): >= 0,014 mg/l
octamethylcyclotetrasiloxane	NOEC (Oncorhynchus mykiss, 93 d): >= 0,0044 mg/l

Aquatic Invertebrates:

Product:	Composition/information on ingredients
Specified substance(s):	
Dodecamethylcyclohexasiloxane	NOEC (Water flea (Daphnia magna), 21 d): >= 0,0046 mg/l
octamethylcyclotetrasiloxane	NOEC (Water flea (Daphnia magna), 21 d): 0,015 mg/l

Toxicity to Aquatic Plants:

Product:	Composition/information on ingredie
Specified substance(s):	
octamethylcyclotetrasiloxane	EC 50 (Green algae (Selenastrum capricornutum), 96 h): > 0,022 mg/l
Dodecamethylcyclohexasiloxane	NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): >= 0,002 mg/l EC 50 (Algae (Pseudokirchneriella subcapitata), 72

12.2 Persistence and Degradability: Biodegradation:

Product:	Composition/information on ingredients
Specified substance(s):	
Decamethylcyclopentasiloxane	0,14 % (28 d) The product is not readily biodegradable.
Dodecamethylcyclohexasiloxan e	4,5 % (28 d, OECD 310) The product is not readily biodegradable.
octamethylcyclotetrasiloxane	3,7 % (29 d) The product is not considered to be readily biodegradable.

BOD/COD Ratio:

Product: No data available.

12.3 Bioaccumulative potential:

Product: Composition/information on ingredients

Specified substance(s):

Decamethylcyclopentasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 7 060
Dodecamethylcyclohexasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 2 860 (OECD 305) Has the potential to bioaccumulate.
octamethylcyclotetrasiloxane	Fathead Minnow, Bioconcentration Factor (BCF): 12 400

12.4 Mobility in soil: No data available.

12.5 Results of PBT and vPvB assessment: Composition/information on ingredients

Decamethylcyclopentasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
Dodecamethylcyclohexasiloxane	Meets vPvB criteria	REACH (1907/2006) Ax XIII
octamethylcyclotetrasiloxane	Meets PBT (persistent/bioaccumulative/toxic) criteria, Meets vPvB criteria	REACH (1907/2006) Ax XIII

12.6 Other adverse effects: None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

General information: The user's attention is drawn to the possible existence of local regulations regarding disposal.

Disposal methods

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. Waste of this material should not be mixed with other waste. Provide measures such as vented bungs to ensure pressure relief in the waste container.

Contaminated Packaging: Contaminated packages should be as empty as possible. 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.

SECTION 14: Transport information

This material is not subject to transport regulations.

Other information: No special precautions.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:
none

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

Inventory Status:

Australia AICS:	On or in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory.
EINECS, ELINCS or NLP:	On or in compliance with the inventory.
Japan (ENCS) 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.
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.

SECTION 16: Other information

Revision Information: Not relevant.

References

PBT	PBT: persistent, bioaccumulative and toxic substance.
vPvB	vPvB: very persistent and very bioaccumulative substance.

Key abbreviations or acronyms used:
No data available.

Key literature references and sources for data: No data available.

Wording of the H-statements in section 2 and 3

H226	Flammable liquid and vapor.
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.

Training 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.