# 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:** RAY GEL PART A

**Synonyms, Trade Names:** RED RAY GEL, TRANSPARENT RAY GEL, RED BAG GEL, TRANSPARENT BAG GEL , GALACTIC GEL CONNECTION

**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 Srl
Via E.Fermi 11,13,15
I-20019 Settimo Milanese

**Telephone:** +39 (02) 33500147
**Fax:** +39 (02) 33500287

**E-mail:** info@raytech.it

**Supplier:**

RAYTECH Srl
Via E.Fermi 11,13,15
I-20019 Settimo Milanese

**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** No data available.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures**

**General information:** Mixture of organosiloxanes, additives.No hazardous ingredients.

## 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.

## 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 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:** | 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**

None of the components have assigned exposure limits.

**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.<br>Material: Polyvinyl chloride (PVC).<br>Material: Rubber or plastic. |
| **Other:** | No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact. |
| **Respiratory Protection:** | No 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:** | Viscous |
| **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).<br>Chlorinated solvents: Miscible (in all proportions).<br>Aromatic hydrocarbons: Miscible (in all proportions).<br>Aliphatic hydrocarbons: Miscible (in all proportions).<br>Acetone: Very slightly soluble.<br>Ethanol: Very slightly soluble. |
| **Partition coefficient (n-octanol/water):** | No data available. |
| **Autoignition Temperature:** | > 400 °C |
| **Decomposition Temperature:** | > 200 °C |
| **Viscosity:** | 150 mm2/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 data available.

**Ingestion:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

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

**Repeated dose toxicity:**
**Product:** No effects expected (assessment based on ingredients).

**Skin Corrosion/Irritation:**
**Product:** No effects expected (assessment based on ingredients).

**Serious Eye Damage/Eye Irritation:**
**Product:** No effects expected (assessment based on ingredients).

**Respiratory or Skin Sensitization:**
**Product:** No effects expected (assessment based on ingredients).

**Germ Cell Mutagenicity:**

**In vitro:**
**Product:** No effects expected (assessment based on ingredients).

**In vivo:**
**Product:** No effects expected (assessment based on ingredients).

**Carcinogenicity:**
**Product:** No effects expected (assessment based on ingredients).

**Reproductive toxicity:**
**Product:** No effects expected (assessment based on ingredients).

**Reproductive toxicity (Fertility):**
**Product:** No data available.

**Developmental toxicity (Teratogenicity):**
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure:**
**Product:** No effects expected (assessment based on ingredients).

**Specific Target Organ Toxicity - Repeated Exposure:**
**Product:** No effects expected (assessment based on ingredients).

**Aspiration Hazard:**
**Product:** No effects expected (assessment based on ingredients).

## SECTION 12: Ecological information

**12.1 Toxicity:**

**Acute toxicity:**

**Fish:**
**Product:** No effects expected (assessment based on ingredients).

**Aquatic Invertebrates:**
**Product:** No effects expected (assessment based on ingredients).

**Chronic Toxicity:**

**Fish:**
**Product:** No effects expected (assessment based on ingredients).

**Aquatic Invertebrates:**
**Product:** No effects expected (assessment based on ingredients).

**Toxicity to Aquatic Plants:**
**Product:** No effects expected (assessment based on ingredients).

**12.2 Persistence and Degradability:**

**Biodegradation:**
**Product:** Not applicable

**BOD/COD Ratio:**
**Product:** No data available.

**12.3 Bioaccumulative potential:**

**Product:** No data available.

**12.4 Mobility in soil:** No data available.

**12.5 Results of PBT and vPvB assessment:** None Reported

**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. Incinerate.

**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: | Not 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**

**Training information:** No data available.

**Issue Date:** 13.03.2018

**SDS No.:**

**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:** RAY GEL PART A

**Synonyms, Trade Names:**
RED RAY GEL,
TRANSPARENT RAY GEL,
RED BAG GEL,
TRANSPARENT BAG GEL ,
GALACTIC GEL CONNECTION

**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:**

**1.3 Details of the supplier of the safety data sheet:**

**Manufacturer:**

RAYTECH Srl
Via E.Fermi 11,13,15
I-20019 Settimo Milanese
**E-mail:** info@raytech.it

**Telephone:** +39 (02) 33500147
**Fax:** +39 (02) 33500287

**Supplier:**

RAYTECH Srl
Via E.Fermi 11,13,15 I-
20019 Settimo Milanese

**Telephone:** +39 (02) 33500147

**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). 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 |
|---|---|---|---|---|---|---|
| Decamethylcyclopentasiloxane | 0,1 - <1% | 541-02-6 | 208-764-9 | 01-2119511367-43-0003 | No data available. | vPvB |
| Dodecamethylcyclohexasiloxane | 0,1 - <1% | 540-97-6 | 208-762-8 | 01-2119517435-42-0002 | No data available. | vPvB |
| Octamethylcyclotetrasiloxane | 0,1 - <1% | 556-67-2 | 209-136-7 | 01-2119529238-36-0002 | No data available. | # PBT 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 |
|---|---|---|
| Decamethylcyclopentasiloxane | None known. | No data available. |
| Dodecamethylcyclohexasiloxane | None known. | No data available. |
| Octamethylcyclotetrasiloxane | Flam. Liq. 3 H226; Repr. 2 H361f; Aquatic Chronic 4 H413; | 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**<br>**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:** | None known. For further information, refer to section 10: "Stability and Reactivity". |
| **5.3 Advice for firefighters**<br>**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. |
| **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. |
| **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:** No specific precautions.

**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:** Viscous
**Color:** Red, Transparent
**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:<br>Aliphatic hydrocarbons: Miscible (in all proportions).<br>Acetone: Very slightly soluble.<br>Ethanol: Very slightly soluble. |
| **Partition coefficient (n-octanol/water):** | No data available. |
| **Autoignition Temperature:** | > 500 °C |
| **Decomposition Temperature:** | > 200 °C |
| **Viscosity:** | 3 000 mm2/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.<br>Quantity of hydrogen potentially released (l/kg of product): <1 |

## 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 ingredients). |
| **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):** | |
| Decamethylcyclopentasiloxane | NOAEL (Rat, Oral): >= 1 000 mg/kg<br>NOAEL (Rat, Inhalation - vapor): >= 2,42 mg/l<br>NOAEL (Rat, Dermal): >= 1 600 mg/kg |
| Dodecamethylcyclohexasiloxane | NOAEL (Rat, Oral): >= 1 000 mg/kg Method: OECD 422<br>NOAEL (Rat, Inhalation - vapor): 0,0182 mg/l Method: OECD 413 |
| octamethylcyclotetrasiloxane | NOAEL (Rat, Inhalation): 1,820 mg/l Method: OECD 453<br>NOAEL (Rabbit, Dermal): 960 mg/kg Method: OECD 411 |

**Skin Corrosion/Irritation:**

| | |
|---|---|
| **Product:** | Composition/information on ingredients |
| **Specified substance(s):** | |
| Decamethylcyclopentasiloxane | Rabbit : Not irritating |
| Dodecamethylcyclohexasiloxane | 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. |
| Dodecamethylcyclohexasiloxane | OECD 406 (Guinea Pig) : Not a skin sensitizer. |
| octamethylcyclotetrasiloxane | Guinea Pig : Not a skin sensitizer. |

**Germ Cell Mutagenicity:**

**In vitro:**

| **Product:** | Composition/information on ingredients |
|---|---|
| **Specified substance(s):** | |
| Decamethylcyclopentasiloxane | Chromosomal aberration : No mutagenic components identified.<br>Bacteria : No mutagenic components identified. |
| Dodecamethylcyclohexasiloxane | Mouse lymphoma cells (OECD 476): negative with and without metabolic activation<br>Bacteria (OECD 471): negative with and without metabolic activation |
| octamethylcyclotetrasiloxane | Bacteria : No mutagenic components identified.<br>Chromosomal aberration : No mutagenic components identified.<br>In vitro gene mutations test on mammalian cells: : No mutagenic components identified. |

**In vivo:**

| **Product:** | Composition/information on ingredients |
|---|---|
| **Specified substance(s):** | |
| Decamethylcyclopentasiloxane | No effects expected. |
| Dodecamethylcyclohexasiloxane | 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 |
| Dodecamethylcyclohexasiloxane | 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):** | |
| Dodecamethylcyclohexasiloxane | 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):** | |
| Dodecamethylcyclohexasiloxane | Based on available data, the classification criteria are not met. |

**Specific Target Organ Toxicity - Repeated Exposure:**

| | |
|---|---|
| **Product:** | No data available. |
| **Specified substance(s):** | |
| Dodecamethylcyclohexasiloxane | Based on available data, the classification criteria are not met. |

**Aspiration Hazard:**

| | |
|---|---|
| **Product:** | No data available. |
| **Specified substance(s):** | |
| octamethylcyclotetrasiloxane | No effects expected. |

## 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 ingredients |
| **Specified substance(s):** | |
| Dodecamethylcyclohexasiloxane | NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): >= 0,002 mg/l<br>EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 0,002 mg/l |
| octamethylcyclotetrasiloxane | EC 50 (Green algae (Selenastrum capricornutum), 96 h): > 0,022 mg/l |

**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. |
| Dodecamethylcyclohexasiloxane | 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:**

**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. |

## 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.

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**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.