

SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A information is below)

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Trade name	:	SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A information is below)		
Company	:	Dow Corning S.A. Parc Industriel - Zone C B-7180 Seneffe Belgium		
Service	:	Dow Corning Central Europe	Tel: +49 6112371	Fax: +49 611237609
		Dow Corning Northern Europe	Tel: +44 1676528000	Fax: +44 1676528001
		Dow Corning Southern Europe	Tel: +33 472841360	Fax: +33 472841379
Emergency Phone Number	:	Dow Corning (Barry U.K. 24h)	Tel: +44 1446732350	
		Dow Corning (Wiesbaden 24h)	Tel: +49 61122158	
		Dow Corning (Seneffe 24h)	Tel: +32 64 888240	

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Silicone

Hazardous Ingredients:

Name	CAS-No.	EINECS/ ELINCS No.	Conc. (% w/w)	Classification	
Quartz	14808-60-7	238-878-4	46.0	Xn	R48/20 R68/20
Zinc oxide	1314-13-2	215-222-5	0.9	N	R50/53

3. HAZARDS IDENTIFICATION

The principal hazards of the product as supplied are:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

On contact with eyes	:	No first aid should be needed.
On skin contact	:	No first aid should be needed.
If inhaled	:	No first aid should be needed.
On ingestion	:	No first aid should be needed.

SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Trade name	:	SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)		
Company	:	Dow Corning S.A. Parc Industriel - Zone C B-7180 Seneffe Belgium		
Service	:	Dow Corning Central Europe	Tel: +49 6112371	Fax: +49 611237609
		Dow Corning Northern Europe	Tel: +44 1676528000	Fax: +44 1676528001
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2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Silicone

Hazardous Ingredients:

Name	CAS-No.	EINECS/ ELINCS No.	Conc. (% w/w)	Classification
Quartz	14808-60-7	238-878-4	46.0	Xn R48/20 R68/20

3. HAZARDS IDENTIFICATION

Not hazardous according to Council Directive 1999/45/EC and its subsequent amendments.

4. FIRST AID MEASURES

On contact with eyes	:	No first aid should be needed.
On skin contact	:	No first aid should be needed.
If inhaled	:	No first aid should be needed.
On ingestion	:	No first aid should be needed.

5. FIRE FIGHTING MEASURES

SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)

Suitable extinguishing media	:	Carbon dioxide, foam or dry powder. Water can be used to cool fire exposed containers.
Unsuitable extinguishing media	:	None known.
Hazards during fire fighting	:	None known.
Special protective equipment/procedures	:	A self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after the fire is out. Determine the need to evacuate or isolate the area according to your local emergency plan. Applying foam will also release significant amounts of flammable hydrogen gas that can be trapped under the foam blanket.
Hazardous Combustion Products	:	Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Quartz. Hydrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Wear proper protective equipment.
Precautions to protect the environment	:	Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.
Methods for cleaning up	:	Determine the need to evacuate or isolate the area according to your local emergency plan. Very large spills should be contained by bunding, etc... procedures. Mop, wipe or soak up with absorbent material and place in a vented container. The spilled product produces an extremely slippery surface.

7. HANDLING AND STORAGE

Advice on safe handling	:	General ventilation is required. Avoid eye contact.
Advice on storage	:	This product slowly evolves hydrogen on storage. Keep only in a vented container in a well ventilated area. Keep container closed and store away from water or moisture.
Specific uses	:	Refer to technical data sheet available on request.
Unsuitable packaging materials	:	Do not store in or use glass containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls : Ventilation : Refer to Section 7

Exposure controls for hazardous components

Name	CAS-No.	Exposure Limits
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SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)

Quartz 14808-60-7 0.3 mg/m³ TWA Respirable dust

Personal protection equipment

- Respiratory protection** : A suitable respiratory protection should be worn if the product is used in a manner which may generate a respiratory hazard.
- Hand protection** : Gloves are not normally required.
- Eye protection** : Safety glasses should be worn.
- Skin protection** : Protective equipment is not normally necessary.
- Hygiene measures** : Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
- Environmental exposure controls** : Refer to section 6 and 12.
- Additional information** : These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones in consumer aerosol applications, please refer to the guidance document regarding the use of silicone-based materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Dow Corning customer service group.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Liquid **Colour:** Off-White **Odour:** Slight

Other data

- Boiling point/range** : > 200 °C
- Flash point** : > 101.1 °C (Closed Cup)
- Explosive properties** : No
- Specific Gravity** : 1.33
- Viscosity** : 2000 cSt at 25°C.
- Oxidizing properties** : No

The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)

Stability	:	Stable under normal usage conditions.
Conditions to avoid	:	None established.
Materials to avoid	:	Hydrogen is liberated on contact with water, alcohols, acidic or basic materials, many metals or metallic compounds and can form explosive mixtures in air.
Hazardous decomposition products	:	See section 11.

11. TOXICOLOGICAL INFORMATION

On contact with eyes	:	May cause temporary discomfort.
On skin contact	:	No adverse effects are normally expected.
If inhaled	:	No adverse effects are normally expected.
On ingestion	:	No adverse effects are normally expected.
Other Health Hazard Information	:	Product may emit formaldehyde vapours at temperatures above 150°C in the presence of air. Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing concentration less than one part per million (1 ppm). Human health hazards associated with quartz (silica, crystalline respirable dust) and other fibrogenic dusts arise following inhalational exposure to respirable particles. Quartz in the present formulation (uncured or cured) is not available in a respirable form.

¹ Based on product test data.

² Based on test data from similar products.

³ This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

12. ECOLOGICAL INFORMATION

Environmental fate and distribution

Siloxanes are removed from water by sedimentation or binding to sewage sludge. In soil, siloxanes are degraded.

Ecotoxicity effects

No adverse effects on aquatic organisms.

Bioaccumulation : No bioaccumulation potential.

Fate and effects in waste water treatment plants

Removed > 90% by binding onto sewage sludge. No adverse effects on bacteria. The siloxanes in this product do not contribute to the BOD.

Additional environmental information

SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)

Additional environmental information on the silicone component is available on request.

13. DISPOSAL CONSIDERATIONS

Product disposal : Dispose of in accordance with local regulations.

Packaging disposal : Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION**Road / Rail (ADR/RID)**

Not subject to ADR/RID.

Sea transport (IMDG)

Not subject to IMDG code.

Air transport (IATA)

NOT IATA REGULATED. (VENTED PACKAGES FORBIDDEN FOR AIR TRANSPORT)

15. REGULATORY INFORMATION**Labelling according to EEC Directive**

Contains : Quartz

S-phrases : S9 Keep container in a well-ventilated place.
S12 Do not keep the container sealed.
S16 Keep away from sources of ignition - No smoking.

National legislation / regulations

Ozone depleting chemicals : No ozone depleting chemicals are present or used in manufacture.

Status

TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EINECS : All ingredients listed or exempt.

SYLGARD(R) 170 SILICONE ELASTOMER (PART B) MIL-PRF-23586 (PART B information is below)**16. OTHER INFORMATION**

This product safety data sheet was prepared in compliance with Commission Directive 91/155/EEC, 67/548/EEC and 1999/45/EC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the Dow Corning product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Dow Corning Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with Commission Directive 1999/45/EC.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. Dow Corning shall not be held responsible for any defect in the product covered by this SDS, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.

As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from your local Dow Corning supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary - even for the same product - between different countries, reflecting the different compliance requirements. Should you have any question, please refer to your local Dow Corning supplier.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation., **R68/20** Harmful: possible risk of irreversible effects through inhalation.

SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A information is below)

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide, foam, dry powder or fine water spray. Water can be used to cool fire exposed containers.
- Unsuitable extinguishing media** : None known.
- Hazards during fire fighting** : None known.
- Special protective equipment/procedures** : A self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after the fire is out. Determine the need to evacuate or isolate the area according to your local emergency plan.
- Hazardous Combustion Products** : Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Quartz. Metal products.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wear proper protective equipment.
- Precautions to protect the environment** : Do not empty into drains. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.
- Methods for cleaning up** : Determine the need to evacuate or isolate the area according to your local emergency plan. Very large spills should be contained by bunding, etc... procedures. Mop, wipe or soak up with absorbent material and place in a container with a lid. The spilled product produces an extremely slippery surface.

7. HANDLING AND STORAGE

- Advice on safe handling** : Avoid eye contact. General ventilation is recommended.
- Advice on storage** : Do not store with oxidizing agents.
- Specific uses** : Refer to technical data sheet available on request.
- Unsuitable packaging materials** : None known.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering Controls** : Ventilation : Refer to Section 7
- Exposure controls for hazardous components**

SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A information is below)

Name	CAS-No.	Exposure Limits
Quartz	14808-60-7	0.3 mg/m ³ TWA Respirable dust

Personal protection equipment

Respiratory protection	:	Respiratory protection is not normally required.
Hand protection	:	Gloves are not normally required.
Eye protection	:	Safety glasses should be worn.
Skin protection	:	Protective equipment is not normally necessary.
Hygiene measures	:	Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
Environmental exposure controls	:	Refer to section 6 and 12.
Additional information	:	These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones in consumer aerosol applications, please refer to the guidance document regarding the use of silicone-based materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Dow Corning customer service group.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Liquid **Colour:** Black **Odour:** Slight

Other data

Boiling point/range	:	> 200 °C
Flash point	:	> 101.1 °C (Closed Cup)
Explosive properties	:	No
Specific Gravity	:	1.35
Viscosity	:	3000 cSt at 25°C.
Oxidizing properties	:	No

The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A information is below)

Stability : Stable under normal usage conditions.

Conditions to avoid : None established.

Materials to avoid : Can react with strong oxidising agents.

Hazardous decomposition products : See section 11.

11. TOXICOLOGICAL INFORMATION

On contact with eyes : May cause temporary discomfort.

On skin contact : No adverse effects are normally expected.

If inhaled : No adverse effects are normally expected.

On ingestion : No adverse effects are normally expected.

Other Health Hazard Information : Product may emit formaldehyde vapours at temperatures above 150°C in the presence of air. Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing concentration less than one part per million (1 ppm). Human health hazards associated with quartz (silica, crystalline respirable dust) and other fibrogenic dusts arise following inhalational exposure to respirable particles. Quartz in the present formulation (uncured or cured) is not available in a respirable form.

¹ Based on product test data.

² Based on test data from similar products.

³ This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

12. ECOLOGICAL INFORMATION

Environmental fate and distribution

Siloxanes are removed from water by sedimentation or binding to sewage sludge. In soil, siloxanes are degraded.

Ecotoxicity effects

Harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Bioaccumulation : No bioaccumulation potential.

Fate and effects in waste water treatment plants

The siloxanes in this product do not contribute to the BOD. Removed > 90% by binding onto sewage sludge. No adverse effects on bacteria are predicted.

**SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A
information is below)****13. DISPOSAL CONSIDERATIONS**

- Product disposal** : Dispose of in accordance with local regulations.
- Packaging disposal** : Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION**Road / Rail (ADR/RID)**

Not subject to ADR/RID.

Sea transport (IMDG)

Not subject to IMDG code.

Air transport (IATA)

Not subject to IATA regulations.

15. REGULATORY INFORMATION**Labelling according to EEC Directive**

- R-phrases** : R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S-phrases** : S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

National legislation / regulations

- Ozone depleting chemicals** : No ozone depleting chemicals are present or used in manufacture.

Status

- TSCA** : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
- EINECS** : All ingredients listed or exempt.

**SYLGARD(R) 170 SILICONE ELASTOMER (PART A) MIL-PRF-23586 (PART A
information is below)****16. OTHER INFORMATION**

This product safety data sheet was prepared in compliance with Commission Directive 91/155/EEC, 67/548/EEC and 1999/45/EC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

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R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation., **R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment., **R68/20** Harmful: possible risk of irreversible effects through inhalation.