

Safety data sheet according to UK REACH

Printing date 07.08.2025

Version number 4 (replaces version 3)



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

- **1.1 Product identifier**
- **Trade name:** DUOSIL H
- **Article number:**
321040
321041
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Application of the substance / the mixture:**
Addition-curing two-component duplicating silicone for dental technology
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SHERA Werkstoff-Technologie GmbH
Espohlstraße 53
D-49448 Lemförde
GERMANY
sdb@shera.de
+ 49 (0) 54 43 - 9933 - 0
- **Further information obtainable from:** Department of product security.
- **1.4 Emergency telephone number:**
+49 5443 9933-0 This number is serviced during office hours.
Opening times: Monday to Thursday from 8 am - 5 pm, Friday from 8 am - 3 pm.

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SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008:**
STOT RE 2 H373 May cause damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008:** Void.
- **Hazard pictograms:** Void.
- **Signal word:** Void.
- **Hazard statements:** Void.
- **Precautionary statements:** Void.
- **Additional information:**
Quartz / cristobalite: Fibres that are embedded in polymer are not likely to pose a health risk as long as they are processed under normal application conditions. Even though the product is graded in accordance with EU criteria, labelling is not required according to Article 23 and Annex 1 (section 1.3.4.1) of Directive n°1272/2008.
- **2.3 Other hazards** Component B (coloured): Chemical bonds that contain silicon-hydrogen bonds (Si-H).
- **Results of PBT and vPvB assessment:**

· PBT:

540-97-6	Dodecamethylcyclhexasiloxane
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane

· vPvB:

540-97-6	Dodecamethylcyclhexasiloxane
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:**
Polyorganosiloxane mixture, fillers, additive.

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Component A, white: Catalyst Component B, coloured: Base, contains polymethyl hydrogen siloxane

Dangerous components:

Component B, coloured:

CAS: 68909-20-6 EINECS: 272-697-1 Index number: 014-052-00-7	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products withsilica STOT RE 2, H373, EUH066 Nanoform: set including amorphous nanoforms, Particle size: 1 - 100 nm	10-20%
CAS: 540-97-6 EINECS: 208-762-8	Dodecamethylcyclohexasiloxane Non-classified vPvB substance. Non-classified PBT substance. Substance identified as having endocrine disrupting properties (II).	0.1-<1%
CAS: 541-02-6 EINECS: 208-764-9	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane Non-classified vPvB substance. Non-classified PBT substance. Substance identified as having endocrine disrupting properties (II).	0.1-<1%
CAS: 556-67-2 EINECS: 209-136-7 Index number: 014-018-00-1 Reg.nr.: 01-2119529238-36	octamethylcyclotetrasiloxane Flam. Liq. 3, H226; Repr. 2, H361f; Aquatic Chronic 1, H410 (M=10) PBT; vPvB	0.01-0.079%

Ingredients 2. component product:

Component A, white

CAS: 68909-20-6 EINECS: 272-697-1 Index number: 014-052-00-7	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products withsilica STOT RE 2, H373, EUH066
CAS: 556-67-2 EINECS: 209-136-7 Index number: 014-018-00-1 Reg.nr.: 01-2119529238-36	octamethylcyclotetrasiloxane Flam. Liq. 3, H226; Repr. 2, H361f; Aquatic Chronic 1, H410 (M=10) PBT; vPvB

SVHC

540-97-6	Dodecamethylcyclohexasiloxane
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures**General information:** No special measures required.**After inhalation:** The product can't be breathed in under normal circumstances.**After skin contact:**

Wash with water and soap.

Remove dirty clothing and wash before using again.

After eye contact: Rinse opened eye for several minutes under running water.**After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting. Risk of aspiration!

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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Trade name: DUOSIL H

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Foam.

Use fire extinguishing methods suitable to surrounding conditions.

- **For safety reasons unsuitable extinguishing agents:** Alkaline powder extinguishing agent.

- **5.2 Special hazards arising from the substance or mixture**

Component B: This product can produce hydrogen. Vapours can form mixtures with air which pose a risk of explosion.

- **5.3 Advice for firefighters** In case of fire, cool endangered receptacles with water spray.

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Particular danger of slipping on leaked / spilled product.

Keep away from ignition sources.

- **6.2 Environmental precautions** No special measures required.

- **6.3 Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Component B: Do not use a basic product.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep receptacles tightly sealed.

- **Information about fire - and explosion protection:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and receptacles:** Keep container in a well-ventilated and dry place.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** None.

- **Storage class:** No information available.

- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Appropriate engineering controls** No further data; see section 7.

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- **Individual protection measures, such as personal protective equipment**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

- **Respiratory protection:** Not required.

- **Hand protection**

The glove material has to be impermeable and resistant to the product. Due to missing tests no recommendation to the glove material can be given for the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves:**

Nitrile rubber, NBR

Neoprene gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection** Not required.

- **Body protection:** Protective work clothing.

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SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Colour:**

Component A: white, component B: blue.

- **Odour:**

Odourless

- **Melting point/freezing point:**

Undetermined.

- **Boiling point or initial boiling point and boiling range**

Undetermined.

- **Flammability**

Not determined.
Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

4 Vol % (Wasserstoff/Komp. B)

- **Upper:**

74 Vol % (Wasserstoff/Komp.B)

- **Flash point:**

>200 °C

- **Auto-ignition temperature:**

>400 °C

- **Decomposition temperature:**

>200 °C

- **pH**

Not applicable.
Not determined.

- **Viscosity:**

- **Kinematic viscosity**

Not applicable.
Not determined.

- **Dynamic at 20 °C:**

4,500 mPas

- **Solubility**

- **water:**

Insoluble.

- **Partition coefficient n-octanol/water (log value)**

Not determined.

- **Vapour pressure at 20 °C:**

<0.1 hPa

- **Density and/or relative density**

- **Density at 20 °C:**

1.05 g/cm³

- **Relative density**

Not determined.

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- | | |
|---|---|
| <ul style="list-style-type: none"> · Vapour density · 9.2 Other information · Appearance: · Form: · Important information on protection of health and environment, and on safety. · Ignition temperature: · Explosive properties: · Change in condition: · Evaporation rate | <p>Not applicable.</p> <p>Solubility: Diethyl ether: Miscible in any proportion.
Chlorinated solvents: Miscible in any proportion.
Aromatic hydrocarbons: Miscible in any proportion.
Aliphatic hydrocarbons: Miscible in any proportion.
Acetone: Barely soluble.
Ethanol: Barely soluble.</p> <p>Viscous</p> <p>Product is not selfigniting.
Product does not present an explosion hazard.</p> <p>Not applicable.</p> |
|---|---|

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· **Information with regard to physical hazard classes**

- | | |
|--|-------|
| · Explosives | Void. |
| · Flammable gases | Void. |
| · Aerosols | Void. |
| · Oxidising gases | Void. |
| · Gases under pressure | Void. |
| · Flammable liquids | Void. |
| · Flammable solids | Void. |
| · Self-reactive substances and mixtures | Void. |
| · Pyrophoric liquids | Void. |
| · Pyrophoric solids | Void. |
| · Self-heating substances and mixtures | Void. |
| · Substances and mixtures, which emit flammable gases in contact with water | Void. |
| · Oxidising liquids | Void. |
| · Oxidising solids | Void. |
| · Organic peroxides | Void. |
| · Corrosive to metals | Void. |
| · Desensitised explosives | Void. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No data available.
- **10.2 Chemical stability** No decomposition if used according to specifications.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Component B: The product can produce hydrogen.
Component A: Unknown.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials**
Oxidizing agents, strong.
Alkalis (alkalis).
Metal salts and metal complexes.
- **10.6 Hazardous decomposition products**
Component B: Reaction with alkalis, amines, strong acids, metal salts. The reaction occurs with formation of hydrogen. Explosion hazard.
Can be released in case of fire:
Poisonous gases / vapours.
Carbon monoxide (CO).

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Trade name: DUOSIL H

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Carbon dioxide (CO₂).
Hydrogen (H).
Amorphous silica.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

LD/LC50 values relevant for classification:

540-97-6 Dodecamethylcyclotetrasiloxane

Oral	NOAEL	≥1,000 mg/kg (Rat) (OECD 422)
Inhalative	NOAEL	≥0.0182 mg/l (Rat) (OECD 413)

541-02-6 2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane

Oral	NOAEL	≥1,000 mg/kg (Rat)
Dermal	NOAEL	≥1,600 mg/kg (Rat)
Inhalative	NOAEL	≥2.42 mg/l (Rat)
	LC50	8.67 mg/l (Rat)

556-67-2 octamethylcyclotetrasiloxane

Oral	NOAEL	960 mg/kg (Rabbit) (OECD 411)
Inhalative	NOAEL	1.82 mg/l (Rat) (OECD 453)

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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

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

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

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure

May cause damage to the lung through prolonged or repeated exposure. Route of exposure: Inhalation.

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

11.2 Information on other hazards

Endocrine disrupting properties

540-97-6	Dodecamethylcyclotetrasiloxane	List II
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane	List II

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

540-97-6 Dodecamethylcyclotetrasiloxane

NOEC, 72h	≥0.0022 mg/l (Algae)
NOEC, 21d	≥0.0046 mg/l (Daphnia (Daphnia magna))
EC50/72 h	>0.002 mg/l (Algae)

541-02-6 2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane

NOEC, 90d	≥0.014 mg/l (Algae)
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556-67-2 octamethylcyclotetrasiloxane

EC50/48 h	>0.0029 mg/l (Daphnia (Daphnia magna)) (OECD 202)
LC50/96 h	>0.016 mg/l (Fish) (OECD 204)

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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**

• PBT:	
540-97-6	Dodecamethylcyclhexasiloxane
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclpentasiloxane
• vPvB:	
540-97-6	Dodecamethylcyclhexasiloxane
541-02-6	2,2,4,4,6,6,8,8,10,10-decamethylcyclpentasiloxane

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- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:** Waste disposal according to official state regulations.
- **Waste disposal key:**
The waste disposal code as prescribed in the European Waste Catalogue (EWC) depends on the waste producer and can thus vary for a product. The waste disposal code should thus be obtained separately from the waste producer in each case.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

• 14.1 UN number or ID number	
• ADR, IMDG, IATA	Void.
• ADN	Void.
• 14.2 UN proper shipping name	
• ADR, IMDG, IATA	Void.
• 14.3 Transport hazard class(es)	
• ADR, IMDG, IATA	
• Class	Void.
• ADN/R Class:	Void.
• 14.4 Packing group	
• ADR, IMDG, IATA	Void.
• 14.5 Environmental hazards:	
• Marine pollutant:	No.
• 14.6 Special precautions for user	
	Not applicable.
• 14.7 Maritime transport in bulk according to IMO instruments	
	Not applicable.
• UN "Model Regulation":	
	Void.

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**Trade name: DUOSIL H**

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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

- **Regulated explosives precursors**

None of the ingredients is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

None of the ingredients is listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **National regulations:**

- **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

- **Substances of very high concern (SVHC) according to UK REACH**

540-97-6 Dodecamethylcyclhexasiloxane

541-02-6 2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on the state of knowledge and experience pertaining on the date of issue. The information is not to be taken as a guarantee of product properties and do not constitute the basis for a contractual legal relationship. The details must not be changed or transferred to other products. Duplication in an unchanged state is permissible.

- **Relevant phrases**

H226 Flammable liquid and vapour.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

- **Department issuing SDS:** Department of product security.

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Repr. 2: Reproductive toxicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

- *** Data compared to the previous version altered.**

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