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

1.1 Product identifier:

Commercial product name: REPLISIL 25 LE Component B

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Use of substance/preparation: Silicone for the manufacturing of duplicating models

1.3 Hersteller / Lieferant:

SILCONIC® GmbH & Co. KG
Erlenweg 3/1
D-89173 Lonsee
E-Mail: info@silconic.de
Internet: www.silconic.de

1.4 Emergency telephone number:

Departement of work safety, Mrs. Fischer
Phone: +49 7336 49697 – 0
(only available to office hours)
Fax: +49 7336 49697 – 99
24h emergency: please call your local emergency department.

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification (GHS): Not a hazardous substance or mixture.

2.2 Label elements:

Labeling (GHS): No labeling according to GHS required.

2.3 Other hazards:

No data available.

Endocrine disrupting properties - human health: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Endocrine disrupting properties - environment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

Section 3: Composition/information on ingredients

3.1. Chemical characterization (preparation):

Chemical characterization: Polydimethylsiloxane with functional groups and auxiliaries for addition cross-linking.

3.2. Information on ingredients:

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for noncarcinogenic HAPS or

they are inextricably bound in the product. Specific chemical identities and/or exact percentage (concentration) of the composition may have been withheld as a trade secret.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) in amounts above ≥ 0.1%.

Section 4: First aid measures

4.1 General information:

Get medical attention if irritation or other symptoms occur. Take a copy of the Safety Data Sheet when going for medical treatment.

4.2 If inhaled:

Material cannot be inhaled under normal conditions. No special treatment required.

4.3 In case of skin contact:

After skin contact wipe off excess material with cloth or paper. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water.

4.4 In case of eye contact:

If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min. Get medical attention if irritation occurs.

4.5 If swallowed:

No special measures are required after swallowing.

Section 5: Firefighting measures

5.1 Flammable properties:

Property: Value:
Method:
Flash point.....: > 216 °C (> 453 °F) (ISO 2592)
Boiling point/boiling range .....: no data available
Lower explosion limit .....: exempt
Upper explosion limit .....: no data available
Ignition temperature .....: > 400 °C (> 752 °F) (DIN 51794)

5.2 Fire and explosion hazards:

This material does not present any unusual fire or explosion hazards.

5.3 Recommended extinguishing media:

Water - Use Fine Spray or Fog. Dry chemical. Carbon dioxide. AFFF alcohol compatible foam.

5.4 Unsuitable extinguishing media:

sharp water jet.

5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Hazardous decomposition products: carbon dioxide, carbon monoxide , silicon dioxide , formaldehyde and incompletely burnt hydrocarbons.

5.6 Fire fighting procedures:

Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Cool endangered containers with water.

Section 6: Accidental release measures

6.1 Precautions:

Secure the area. Wear personal protection equipment (see section 8).
Keep unprotected persons away. If material is released indicate risk of slipping.
Do not walk through spilled material.

HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

6.3 Methods for cleaning up:

Take up mechanically and dispose of according to local/state/federal regulations. Do not flush away with water. For small amounts: Absorb with a neutral (non-acidic / non-basic) liquid binding material such as diatomaceous earth and dispose of according to government regulations. For large amounts: Liquids may be recovered using suction devices or pumps. If flammable, only air driven or properly rated electrical equipment should be used. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Silicone fluids are slippery; spills are a safety hazard. Apply sand or other inert granular material to improve traction.

6.4 Further information:

Exhaust vapours. Eliminate all sources of ignition. Consider explosion protection. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10. Do not blend contaminated material with uncontaminated material. Do not seal collecting vessel gas-tight. Observe notes under section 7.

Section 7: Handling and storage

7.1 Handling:

Precautions for safe handling:

Ensure adequate ventilation. Open and handle container with care. Keep container closed when not in use. Keep away from incompatible substances in accordance with section 10. Where possible, inert process equipment and blanket vessels, tanks and containers with nitrogen to reduce the available oxygen level. Contact SILCONIC for additional publications on the safe Handling of SiH Products. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Spilled substance increases risk of slipping. Observe information in section 8.

Precautions against fire and explosion:

Product can release hydrogen. Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging.

Cool endangered containers with water.

7.2 Storage:

Conditions for storage rooms and vessels:
Do not store in virgin glass containers with basic surface. Observe local/state/federal regulations.

Advice for storage of incompatible materials:
Do not store with: basic substances (e.g. alkalis, ammonia, amines) , oxidizing agents , strong acids . Observe local/state/federalregulations.

Further information for storage:
Store in a dry and cool place. Protect against moisture. Store container in a well ventilated place.

Section 8: Exposure controls/personal protection

8.1 Engineering controls:

Ventilation:
Use with adequate ventilation.

Local exhaust:
No special ventilation required.

8.2 Associate substances with spedific control parameters such as limit values:

not applicable.

8.3 Personal protection equipment:

Respiratory protection:
Respiratory protection is not normally required.

Hand protection:
Recommendation: protective gloves.

Eye protection:
Safety glasses with side shields.

Other protective clothing or equipment:
Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

8.4 General hygiene and protection measures:
When handling do not eat, drink, smoke or apply cosmetics. Wash thoroughly after handling.

Section 9: Physical and chemical properties

9.1 Apperance:

Physical state:	liquid (25°C (77°F)/1,013 hPa)
Colour:	white/colourless
Odour:	odourless

9.2 Safety data:

Property:	Value:	Method:
Melting point:	no data available	
Boiling point/boiling range:	no data available	
Flash point:	> 216°C	(ISO 2592)
Ignition temperature:	> 400°C	(DIN 51794)
Evaporation rate:	no data available	
Lower explosion limit:	exempt	
Upper explosion limit:	no data available	
Vapour pressure:	no data available	
Water solubility:	practically insoluble	
Density:	1.03-1.1 g/cm³ 20 °C (°F 68)	
pH:	not applicable. Insoluble in water	
Partition coefficient: n-octanol/water:	not applicable	
Viscosity, dynamic:	4000 - 10000 mPa.s at 23°C	(Brookfield)
Viscosity, kinematic:	no data available	

9. 3 Further information:

According to previous experience spontaneous combustion temperature for polymer siloxane with SiH compounds is above 240 °C (464 °F). On a catalytically active surface ignition may occur at much lower temperature. This applies to porous or fibrous substances including those with alkaline surfaces, such as thermal insulation and cementaceous insulating materials. Explosion limits for released hydrogen: 4 -75.6%(V).

Odour Threshold:	no data available
Thermal decomposition:	no data available

Section 10: Stability and reactivity

10.1 General information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

10.2 Conditions to avoid:

Moisture, heat, open flames, and other sources of ignition. Contact with contaminated piping or vessels or with corroded and rusty containers can increase the rate of hydrogen formation. Observe information in section 7.

10.3 Materials to avoid:

Proton-active substances. Reacts violently with: acids, basic substances (e.g. alkalis, ammonia, amines). Reacts with: alcohols, water, moisture, oxidizing agents, catalyst. The reaction takes place with the formation of hydrogen.

10.4 Hazardous decomposition products:

In contact with incompatible substances this material may quickly generate a large volume of flammable hydrogen gas. Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

10.5 Further information:

Hazardous polymerization cannot occur.

Section 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Acute toxicity:

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD_{50}: > 2000mg/Kg	rat	Conclusion by analogy
dermal	LD_{50}: > 2000mg/Kg	rat	Conclusion by analogy

11.1.2 Skin corrosion/irritation:

Product details:

Result/Effect	Species/Test system	Source
No Skin irritation	rabbit	Conclusion by analogy

11.1.3 Serious eye damage/eye irritation:

Product details:

Result/Effect	Species/Test system	Source
No eye irritaion	rabbit	Conclusion by analogy

11.1.4 Respiratory or skin sensitization:

Product details:

Exposure routes	Result/Effect	Species/Test system	Source
Skin contact	not sensitizing	guinea-pig; Bühler Test	Conclusion by analogy OECD 406
Inhalation	no data available		

11.1.5 Germ cell mutagenicity:

Assessment:
For this endpoint no toxicological test data is available for the whole product.

11.1.6 Carcinogenicity:

Assessment:
For this endpoint no toxicological test data is available for the whole product.

11.1.7 Reproductive toxicity:

Assessment:
For this endpoint no toxicological test data is available for the whole product.

11.1.8 Specific target organ toxicity - single exposure:

Assessment:
For this endpoint no toxicological test data is available for the whole product.

11.1.9 Specific target organ toxicity - repeated exposure:

Assessment:
For this endpoint no toxicological test data is available for the whole product.

11.1.10 Aspiration hazard:

Assessment:

For this endpoint no toxicological test data is available for the whole product.

11.1.11 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

11.1.12 Further toxicological information

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Other information: None known.

Section 12: Ecological information

12.1. Toxicity:

Assessment:

Evaluation on basis of physical-chemical properties: No expected damging effects to aquatic organisms.

12.2. Persistence and degradability:

Assessment:

Polymer component: biologically not degradable. Elimination by adsorption to activated sludge.

12.3. Bioaccumulative potential:

Assessment:

Polymer component: No adverse effects expected.

12.4. Mobility in soil:

Assessment:

Polymer component: Insoluble in water.

12.5 Results of PBT and vPvB assessment:

No data available.

12.6 Endocrine disrupting properties:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects:

None known

Section 13: Disposal considerations

13.1 Product disposal:

Material:

Recommendation:
Risk of oxyhydrogen formation upon contact with the substances mentioned in 10. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10. Wastes of this material should not be mixed with other wastes. Provide measures such as vented bungs to ensure pressure relief in the waste containers. Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

13.2 Packaging disposal:

Recommendation:
Containers may contain hazardous quantities of hydrogen gas. Uncleaned containers should not be reused to hold another material due to the potential for reaction between residual product and incompatible materials. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used.
Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

Section 14: Transport information

14.1. – 14.4. UN number; UN proper shipping name; Transport hazard class(es); Packing group:

Road ADR:	Valuation: Not regulated for transport
Railway RID:	Valuation: Not regulated for transport
Transport by sea IMDG-Code:	Valuation: Not regulated for transport
Air transport ICAO-TI/IATA-DGR:	Valuation: Not regulated for transport
US DOT & Canada TDG Surface:	valuation: Not regulated for transport

Section 15: Regulatory information

15.1. U.S. Federal regulations:

TSCA inventory status and TSCA information:
This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

TSCA 12(b) Export Notification:
This material does not contain reportable amounts of any TSCA 12(b) listed chemicals.

CERCLA Regulated Chemicals:
This material does not contain any CERCLA regulated chemicals.

SARA 302 EHS Chemicals:
This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:
No SARA Hazards.

SARA 313 Chemicals:
This material does not contain any SARA 313 chemicals above de minimus levels.

HAPS (Hazardous Air Pollutants):
This material does not contain any hazardous air pollutants.

15.2 U.S. State regulations:

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):
California Proposition 65 Carcinogens:
13463-67-7 Titanium dioxide

This material does not contain any chemicals known to the State of California to cause reproductive effects.

Massachusetts Substance List:
13463-67-7 Titanium dioxide

Pennsylvania Right-to-Know Hazardous Substance List:
13463-67-7 Titanium dioxide

15.3 Details of international registration status:

Relevant information about individual substance inventories, where available, is given below.

Japan:
ENCS (Handbook of Existing and New Chemical Substances):
This product is listed in, or complies with, the substance inventory.

Australia:
AICS (Australian Inventory of Chemical Substances):
This product is listed in, or complies with, the substance inventory.

People's Republic of China:
IECSC (Inventory of Existing Chemical Substances in China):
This product is listed in, or complies with, the substance inventory.

Canada:
DSL (Domestic Substance List):
This product is listed in, or complies with, the substance inventory.

Philippines:
PICCS (Philippine Inventory of Chemicals and Chemical Substances):
This product is listed in, or complies with, the substance inventory.

United States of America (USA):
TSCA (Toxic Substance Control Act Chemical Substance Inventory):
All components of this product are listed as active or are in compliance with the substance inventory.

Taiwan:
TCSI (Taiwan Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory. General note: The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.

European Economic Area (EEA):
REACH (Regulation (EC) No 1907/2006):
General note: The registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.

South Korea (Republic of Korea):
AREC (Act on Registration and Evaluation of Chemicals; "K-REACH"): General note: in case of registration obligations for substances or polymers imported into Korea or manufactured within Korea these are fulfilled by the supplier mentioned in section 1. The registration obligations for substances or polymers imported into Korea by customers or other downstream users must be fulfilled by the latter.

Section 16: Other information

This Safety Data Sheet (SDS) meets the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200).This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee expressed or implied, is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents. This SDS provides selected regulatory information on this product, including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.
Vertical lines in the left-hand margin indicate changes compared with the previous version.
SILCONIC restricts the use of its products inside the human body or in contact with bodily fluids and mucosa.

16.2 Glossary of Terms:

ACGIH - American Conference of Governmental Industrial Hygienists
DOT - Department of Transportation
hPa - Hectopascals
mPa*s - Milli Pascal-Seconds
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
ppm - Parts per Million
SARA - Superfund Amendments and Reauthorization Act
STEL - Short Term Exposure Limit
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average

Flash point determination methods ..... **Common name**
ASTM D56..... Tagliabue (Tag) closed cup
ASTM D92, DIN 51376, ISO 2592 ..... Cleveland open cup
ASTM D93, DIN 51758, ISO 2719 ..... Pensky-Martens closed cup
ASTM D3278, DIN 55680, ISO 3679 ..... Setaflash or Rapid closed cup
DIN 51755 ..... Abel-Pensky closed cup

16.3 Conversion table:

Pressure: ..... : 1 hPa * 0.75 = 1 mm Hg = 1 torr; 1 bar = 1000 hPa
Viscosity: ..... : 1 mPa*s = 1 centipoise (cP)

General Information:

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements. The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions and with regard to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in this document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally, provide the required safety-related information.