# SILISIL RTV MF-Ultra 70

Safety Data Sheet

SILITECH AG encourages you to read and understand the entire Safety Data Sheet (SDS), as this document contains important information. We ask that you follow the precautions indicated in this document, unless your conditions of use require other appropriate methods or actions.

## 1. IDENTIFICATION

**Product Name**
SILISIL RTV MF-Ultra 70

**Relevant uses identified for the substance or mixture**
Industrial uses
Reserved for professional users
Addition silicone for mold making

**Uses not recommended**
None known

**Company identification**
SILITECH AG
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**Emergency phone number**
Tox Info Suisse (24/7): +41 44 251 51 51 or 145 (Switzerland and Liechtenstein).

## 2. HAZARD IDENTIFICATION

**Classification of the substance or mixture**
Not classified according to Regulation (EC) No 1272/2008 (CLP).

**Labeling elements**

| | |
|---|---|
| **Labelling according to Regulation (EC) No 1272/2008** | None |
| **Danger pictograms** | None |
| **Warning notice** | None |
| **Hazard statements** | None |

**Other hazards**

| Component | Identification Number | Quantity | Material Properties |
|---|---|---|---|
| Dodecamethylcyclohexasiloxane-D6 | CAS: 540-97-6<br>EINECS: 208-762-8 | >= 0,1 – < 0,3 % | PBT, vPvB |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substances**
Not applicable

**Mixtures**
Hazardous components within the meaning of the CLP regulation and related classification

| Quantity | Name | Ident. Number | Classification |
|---|---|---|---|
| >= 0,1 – < 0,3 % | Dodecamethylcyclohexasiloxane-D6 | CAS: 540-97-6<br>EC: 208-762-8 | Not classified as hazardous |
| >= 0,05 - < 0,09 % | Octamethylcyclotetrasiloxane; [D4] | CAS: 556-67-2<br>EC: 209-136-7<br>Index: 014-018-00-1 | Flam. Liq. 3 H226;<br>Repr. 2 H361f;<br>Aquatic Chronic 1 H410;<br>M-Chronic: 10 |

Further information on CLP hazard classifications and advice can be found in section 16

**Substances in nanoform**
No information available

## 4. FIRST AID MEASURES

### Description of first aid measures

General Information
Remove any clothing contaminated by the product immediately.

Inhalation
Remove casualty to fresh air and keep them warm and at rest.

Skin contact
Wash immediately with soap and water and rinse thoroughly. If skin irritation persists, consult a doctor.

Eye contact
Rinse your eyes under running water for several minutes and seek medical advice.

Ingestion
Do not induce vomiting. Obtain medical examination immediately.

Burns
Not applicable.

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

**Indication of any immediate medical attention and any special treatment needed**
Treat the symptoms.

Information for doctors
Bring this safety data sheet or the label of this product.

## 5. FIRE FIGHTING MEASURES

**Fire extinguishing agent**
Suitable extinguishing media: CO2, water.

**Specific risks associated with the substance or mixture**
Do not inhale combustion gases. Burning produces thick smoke

**Advice for firefighters**
Special safety equipment
Wear a breathing apparatus independent of ambient air.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

## 6. MEASURES IN CASE OF ACCIDENTAL RELEASE

**Personal precautions, protective equipment and emergency procedures**
Wear safety equipment. Remove people to safety and keep unprotected individuals away.

**Environmental precautions**
Do not allow to enter soil/subsoil. Do not allow to enter surface water or drains. Retain contaminated water and dispose of it. In case of gas emissions or of entry into waterways, soil or drains, inform the responsible authorities.

**Methods and materials for containment and cleaning up**
Suitable absorption materials: organic absorbent material, sand.
Wash with plenty of water.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid contact with skin and eyes, inhalation of vapours and mists. Keep containers tightly closed. Ensure good ventilation/extraction in the work area. Keep away from sources of ignition – no smoking. Keep away from heat.

**Safe storage conditions, including any potential incompatibilities**
Open containers must be carefully resealed and kept in an upright position to prevent leaks.

Requirements for storage facilities and containers
Store only in the original receptacle.

Instructions regarding shared storage
Do not store with flammable materials. Store away from food.

Other information on storage conditions
Keep containers tightly closed. Store in a cool, dry place in tightly sealed drums. Protect from intense heat and direct sunlight. Store containers in a well-ventilated area.

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

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Control parameters**

Dodecamethylcyclohexasiloxane-D6 – CAS:540-97-6

| OEL Type | TWA | Duration | Notes |
|---|---|---|---|
| No data available | | | |

Octamethylcyclotetrasiloxane; [D4] – CAS: 556-67-2

| OEL Type | TWA | Duration | Notes |
|---|---|---|---|
| | | - | |

**Exposure controls**

Apply general control measures to avoid unnecessary exposure. Provide adequate ventilation to the premises where the product is stored or handled.

General protection and hygiene measures

Observe standard safety precautions when handling chemicals. Do not eat, drink or smoke while at work. Wash your hands before breaks and at the end of your shift. Separate restrooms, showers, and changing rooms are required.

Respiratory protection

Use respiratory protection where ventilation is insufficient or exposure is prolonged. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered (e.g. TLV-TWA).

Hand protection



Protective gloves

The glove material must be impermeable and resistant to the product, substance or preparation. Due to a lack of testing, no recommendation for a specific glove material for the product/preparation/chemical mixture can be given. The glove material should be selected based on penetration time, permeability rate, and degradation.

Glove material

EN374

Choosing the right gloves depends not only on the material, but also on other quality criteria that can vary from one manufacturer to another. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Glove material penetration time
The exact penetration time is to be determined by the manufacturer of the protective gloves and must be respected.

Eye/Face Protection
EN 166



Airtight protective goggles

Body protection
EN 14605



Protective workwear

Thermal Hazards
Not determined

Environmental exposure controls
Not determined

Appropriate engineering controls
Not determined

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic physical and chemical properties

| | |
|---|---|
| **Physical state** | Liquid |
| **Color** | Blue |
| **Smell** | Odorless |
| **Melting/freezing point (°C)** | Not determined |
| **Boiling point or initial boiling point and boiling range** | Not determined |
| **Flammability (°C)** | Not available |
| **Lower/upper explosive limit (% v/v)** | Not determined |
| **Flash point (°C)** | Not determined |
| **Auto-ignition temperature (°C)** | Not determined |
| **Decomposition temperature (°C)** | Not determined |
| **pH** | Not relevant |
| **Kinematic viscosity** | Not determined |
| **Water solubility** | Insoluble |
| **Solubility in oil** | Not determined |
| **n-octanol/water coefficient (LogKow)** | Not determined |
| **Vapor pressure (20 °C)** | Not determined |
| **Density (20 °C)** | Not available |
| **Relative density** | Not determined |
| **Vapor density** | Not determined |
| **Particle size** | Not determined |
| **Viscosity** | Not determined |

Particle characteristics

| | |
|---|---|
| **Particle size** | Not available |
| **Nanoforms** | Not determined |

## 10. STABILITY AND REACTIVITY

**Reactivity**
Stable under normal conditions.

**Chemical stability**
Stable under normal conditions.

**Potential for dangerous reactions**
None

**Conditions to avoid**
Avoid moisture and high temperature.

**Incompatible materials**
None

**Hazardous decomposition products**
None

**Additional information**
None

## 11. TOXICOLOGICAL INFORMATION

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

**Toxicological information of the product**
SILISIL RTV MF-Ultra 70
Acute toxicity
Not classified

Skin corrosion/irritation
Not classified.

Serious eye injuries/irritations
Not classified

Respiratory awareness
Not classified

Skin sensitization
Not classified

Germ cell mutagenicity
Not classified

Carcinogenicity
Not classified

Reproductive toxicity
Not classified

Unique exposure to STOTs
Not classified

Repeated exposure to STOTs
Not classified

Danger by aspiration
Not classified

**Toxicological information of the main substances found in the product**

Dodecamethylcyclohexasiloxane-D6 - CAS: 540-97-6

Acute toxicity

| Test | Route | Species | Source |
|---|---|---|---|
| LD50 | Oral | Rat 2000 mg/kg | ECHA dossier |
| LD50 | Skin | Rat 2000 mg/kg | ECHA dossier |

Octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

Acute toxicity

| Test | Route | Species | Source |
|---|---|---|---|
| LC50 | Oral | Rat 36 mg/L | OECD 403, GLP, ECHA dossier |
| LD50 | Skin | Rat > 2000 mg/kg | Similar to OECD 402, ECHA dossier |
| LD50 | Oral | Rat 4800 mg/kg | Similar to OECD 401, ECHA dossier |

Reproductive toxicity

No observed adverse effect level 3.64 mg/L

**Information on other hazards**

Endocrine disrupting properties

No endocrine disruptor substances present in concentration >=0.1 %

## 12. ECOLOGICAL INFORMATION

The product is not classified as chronic aquatic hazard. A test based on the bioavailability/release of D4 by the polymer silicone was performed with the OECD 29 method. It was found that the quantity of D4 released by 100mg of polymer is at least below the quantification limit of the method (i.e. 4.4 ppb), a value significantly lower than the limit that would result in the classification for chronic aquatic toxicity, i.e. NOEC of 0.0044 mg/L for fish and 0.0079 mg/L for aquatic invertebrates. Therefore, the product is not classified for this hazard class.

**Toxicity**

Dodecamethylcyclohexasiloxane - D6 - CAS: 540-97-6

Aquatic acute toxicity

| Endpoint | Species | Duration |
|---|---|---|
| EC50 | Algae > 0,002 mg/L | 72h |
| NOEC | Algae > 0,002 mg/L | - |

Octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

Aquatic acute toxicity

| Endpoint | Species | Duration |
|---|---|---|
| IC50 | Algae > 0,0022 mg/L | 72h |
| LC50 | Fish > 0,0022 mg/L | - |
| NOEC | Fish > 0,0044 mg/L | - |

Aquatic chronic toxicity

| Endpoint | Species | Duration |
|---|---|---|
| NOEC | Daphnia 7,9 µg/L | 21d |

**Persistence and degradability**

Dodecamethylcyclohexasiloxane - D6 - CAS: 540-97-6

Non-readily biodegradable.

**Bioaccumulation potential**
Octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

| Test | Value | Notes |
|---|---|---|
| Kow | Partition coefficient 6,49 | Log Pow, ECHA dossier |

**Mobility in the ground**
Not available.

**PBT and vPvB assessment**
PBT & vPvB
>= 0,1 – 0,3 % Dodecamethylcyclohexasiloxane-D6 - CAS: 540-97-6

**Endocrine disrupting properties**
No endocrine disruptor substances present in concentration >= 0.1 %.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**
Recommendation
Recover if possible. Comply with the local and national regulations currently in force.

## 14. TRANSPORT INFORMATION

| | UN/ID | UN Appropriate Shipping Name | Hazard classes | PG* | Environment** | Other information |
|---|---|---|---|---|---|---|
| **ADR** | - | - | - | - | - | - |
| **IMDG** | - | - | - | - | - | - |
| **IATA** | - | - | - | - | - | - |

* Packaging group
** Environmental risks

**Additional Information**
Non-hazardous goods according to ADR, IATA and IMDG regulations.

**Special precautions for the user**
Not applicable.

**Bulk maritime transport according to IMO instruments**
No data available.

## 15. REGULATORY INFORMATION

**Specific regulations/legislation relating to the substance or mixture concerning safety, health and the environment**
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2020/878

**Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications**
Restrictions related to the product
None

Restrictions related to the substances contained
Restriction 70

**SVHC Substances**

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH

| Component | Ident. Number | Quantity | Material Properties |
|---|---|---|---|
| Dodecamethylcyclohexasiloxane-D6 | CAS: 540-97-6<br>EC: 208-762-8 | >= 0,1 – 0,3 % | PBT – vPvB |

Provisions related to directive EU 2012/18 (Seveso III)

None

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefährdende Stoffe)

WGK1 - Slightly hazardous for water

Lagerklasse according to TRGS 510

LGK 10 – Combustible liquids that cannot be assigned to any of the above storage classes

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012

None

Substance(s) listed under California Proposition 65

None

**Chemical safety assessment**

No chemical safety assessment has been carried out for the mixture.

## 16. OTHER INFORMATION

Full text of phrases referred to in Section 3:
H226 Flammable liquid and vapour.
H361 Suspected of damaging fertility or the unborn child.
H361f Suspected of damaging fertility.
H372 Causes damage to organs (lungs) through prolonged or repeated exposure if inhaled
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects
H413 May cause long lasting harmful effects to aquatic life
EUH066 Repeated exposure may cause skin dryness or cracking

| **Hazard class and hazard category** | **Code** | **Description** |
|---|---|---|
| Flam. Liq. 3 | 2.6/3 | Flammable liquid, Category 3 |
| Repr. 2 | 3.7/2 | Reproductive toxicity, Category2 |
| STOT RE 1 | 3.9/1 | Specific target organ toxicity – repeated exposure, Category 1 |
| STOT RE 2 | 3.9/2 | Specific target organ toxicity – repeated exposure, Category 2 |
| Aquatic Chronic 1 | 4.1/C1 | Very toxic to aquatic life with long lasting effects |
| Aquatic Chronic 3 | 4.1/C3 | Harmful to aquatic life with long lasting effects |
| Aquatic Chronic 4 | 4.1/C4 | May cause long lasting harmful effects to aquatic life |

| **Classification according to Regulation (EC) Nr. 1272/2008** | **Classification procedure** |
|---|---|
| Aquatic Chronic | According to Article 12 of the CLP Regulation, "Where, as a result of the evaluation carried out pursuant to Article 9, the following properties or effects are identified, manufacturers, importers and downstream users shall take them into account for the purposes of classification: [...] (b) conclusive scientific experimental data show that the substance or mixture is not biologically available and those data have been ascertained to be adequate and reliable." Following a release study of D4 through the OECD 29 test on polymeric products representative for quantity of D4, the limit that would result in the classification for chronic aquatic toxicity (NOEC of 0.0044 mg / L for fish and 0.0079 mg/L for invertebrates aquatic) is not reached. |

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:
ECHA – European Chemical Agency
GESTIS - Gefahrstoffinformationssystem
IARC – International Agency for Research on Cancer
IPCS INCHEM – International Program on Chemical Safety
ISS – Istituto Superiore di Sanità
PubChem - Open chemistry database at the National Institutes of Health (NIH)

**Acronyms and abbreviations**
ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances
ES: Exposure Scenario
GefStoffVO: Gefahrenstoffverordnung
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association”
IC50: Half maximal inhibitory concentration
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
IMDG: International Maritime Code for Dangerous Goods
INCI: International Nomenclature of Cosmetic Ingredients

IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: Keep Away From Heat
KSt: Explosion coefficient
LC50: Lethal concentration, for 50 percent of test population
LD50: Lethal dose, for 50 percent of test population
LDLo: Leathal Dose Low
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
RID: Regulation Concerning the International Carriage of Dangerous Goods by Rail
STEL: Short Term Exposure limit
STOT: Specific Target Organ Toxicity
TLV: Threshold Limiting Value
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day
vPvB: Very Persistent, Very Bioaccumulative
WGK: Wassergefährdungsklasse

**Other**
Changes compared to the previous version of the SDS are indicated by a triangle (▲).

The information contained in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended that this safety data sheet be given to the end user of the product.

The information contained in this safety data sheet cannot be used as a product specification.

Country-Language: CH-en