

SILISIL RTV MF-Flex 25

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-Flex 25

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

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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 dangers

PBT	Not applicable
vPvB	Not applicable

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
>= 20 % - <25 %	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica; pyrogenic, synthetic amorphous, nano, surface treated silicon dioxide	Index number: 014-052-00-7 CAS: 68909-20-6 EC: 272-697-1	STOT RE 2, H373, EUH066 May cause damage to organs (lungs) through prolonged or repeated exposure if inhaled. EUH066 Repeated exposure may cause skin dryness or cracking.
<0,09 %	Octamethylcyclotetrasiloxane; [D4]	Index number: 014-018-00-1 CAS: 556-67-2 EC: 209-136-7	Flam. Liq. 3 H226 Flammable liquid and vapour. Repr. 2, H361f Suspected of damaging fertility. Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects. M-Chronic:10

SVHC, PBT, vPvB, endocrine disruptor substances

Quantity	Name	Ident. Number
<0,09 %	Octamethylcyclotetrasiloxane; [D4]	Index number: 014-018-00-1 CAS: 556-67-2 EC: 209-136-7

Substances in nanoform

Quantity	Name	Ident. Number
>= 20 % - <25 %	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica; pyrogenic, synthetic amorphous, nano, surface treated silicon dioxide	Index number: 014-052-00-7 CAS: 68909-20-6 EC: 272-697-1

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. Keep unprotected individuals away.

Environmental precautions

Do not allow to enter soil/subsoil. Do not allow surface water to enter 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. Suitable material for taking up: absorbing material, sand.

Containment and cleaning methods and materials

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

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica; pyrogenic, synthetic amorphous, nano, surface treated silicon dioxide - CAS: 68909-20-6

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

OEL Type	TWA	Duration	STEL	Duration	Notes	Country
No data available						

Exposure controls

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

Appropriate technical controls

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).

General protection and hygiene measures

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

Respiratory protection

Not available.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Viscous Fluid
Color	Transparent
Smell	Odorless
Melting/freezing point (°C)	Not determined
Boiling point or initial boiling point and boiling range	Not determined
Flammability (°C)	Not determined
Lower/upper explosive limit (% v/v)	Not determined
Flash point (°C)	Not available
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 available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Chemical stability

Stable under normal conditions.

Potential for dangerous reactions

None

Conditions to avoid

Stable under normal conditions.

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

"For the purposes of classification of health hazards (Part 3), the route of exposure, information on mechanisms and metabolism studies are useful in determining the relevance of an effect on humans. If this information raises doubts as to its relevance for humans, although the validity and quality of the data are indisputable, a lower classification may be justified. When it is scientifically proven that the mechanism or mode of action is not relevant for humans, the substance or the mixture must not be classified" (Annex I, point 1.1.1.5, EC Regulation 1272/2008). Monitoring relating to possible inhalation exposure conducted in the company according to industrial hygiene standards for paste and fluid products have detected levels of exposure to dust lower than the quantification limit of the method, therefore exposure is not expected during the indicated use in section 1.2 for this specific product. However, the actual levels of dust present in the workplace must be obtained through monitoring as required by the regulations on worker health and safety.

Acute toxicity

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

Skin corrosion/irritation

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

Serious eye injuries/irritations

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

Respiratory awareness

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

Skin sensitization

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Unique exposure to STOTs

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

Repeated exposure to STOTs

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

Danger by aspiration

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

Toxicological information of the main substances found in the product

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

Test	Route	Species
LC50	-	36 mg/l (rat)
LD50	Skin	>2000 mg/kg (rat)
LD50	Oral	4800 mg/kg (rat)

Information on other hazards

Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12. ECOLOGICAL INFORMATION

The product is not classified for 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

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

Aquatic acute toxicity

Test	Duration	Species
-	96 hours	0.0022 mg/l (algae)
ErC10	96 hours	>0.0022 mg/l (algae)
EC50	3 hours	>10000 mg/l (fish)
EC50	48 hours	>0.015 mg/l (daphnia)

Long-term toxicity to aquatic invertebrates

Test	Duration	Species
NOEC	21 days	>0.015 mg/l (daphnia)
NOEC	93 days	>0.0044 mg/l (fish)

Persistence and degradability

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

Non-readily biodegradable

Bioaccumulation potential

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

Not bioaccumulative.

Test	Value
BCF	14900

Mobility in the ground

Not available.

vPvB assessment

PBT

<0,1% octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

vPvB

<0,1% octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

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

Restriction 3
Restriction 40

Restrictions related to the substances contained

Restriction 70
Restriction 75

SVHC Substances

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

Component	Identification	Quantity	Material Properties
octamethylcyclotetrasiloxane; [D4]	CAS: 556-67-2 EINECS: 209-136-7 Index: 014-018-00-1	>0.1 %	SVHC - PBT - vPvB

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

Seveso III category according to Annex 1, part 1

None

WGK Classification

WGK2 – Hazardous for water

Lagerklasse according to TRGS 510

LGK 10: Combustible liquids

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

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking
H226	Flammable liquid and vapour
H361f	Suspected of damaging fertility
H372	Causes damage to organs (lungs) through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs (lungs) through prolonged or repeated exposure if inhaled
H410	Very toxic to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Repr. 2	3.7/2	Reproductive toxicity, Category 2
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	Chronic (long term) aquatic hazard, Category 1
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, Category 3

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECHA – European Chemical Agency

GESTIS - Gefahrenstoffinformationssystem

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 Transport 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

A change (proportional to the last essential change (first encryption in the SDS version, see section 1)) is marked with 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
