

Safety Data Sheet

Material: 60065594

SEMICOSIL® 949 UV A

Version: 2.1 (US)

Date of print: 06/18/2018

Date of last alteration: 06/16/2018

1. Product and company identification

1.1 Identification of the substance or preparation:

Commercial product name: SEMICOSIL® 949 UV A
Use of substance / preparation: Industrial.
Potting compound

1.2 Company/undertaking identification:

Manufacturer/distributor: Wacker Chemical Corporation
3301 Sutton Road
Adrian, MI 49221-9397
USA

Customer information: InfoLine:
Tel (517) 264-8240, Fax (517) 264-8740
Hours of operation:
Monday - Friday, 8 am to 5 pm (eastern standard time)
Corporate website: www.wacker.com

Emergency telephone no. (24h): (517) 264-8500
Transportation emergency: (800) 424-9300 (CHEMTREC, USA)
(703) 527-3887 (CHEMTREC, international)

This SDS was prepared by the Regulatory Affairs and Product Safety Department (RAPS) of Wacker Chemical Corporation.

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (GHS):

Hazard class	Hazard category	Route of exposure
Reproductive toxicity	Category 2 (impair fertility)	

2.2 Label elements

Labelling (GHS):

Pictogram(s):



Signal Word: Warning

H-Code	Hazard Statements
H361f	Suspected of damaging fertility.
P-Code	Precautionary Statements
P280	Wear protective gloves/protective clothing/eye protection.

2.3 Other hazards

Risk of hydrogen gas formation with water, alcohols, acids, metallic salts, amines and alkalis. In combination with oxygen, the released hydrogen can form oxyhydrogen.

3. Composition/information on ingredients

3.1 Chemical characterization (preparation)

Chemical characteristics
Polydimethylsiloxane with functional groups and auxiliaries for addition cross-linking

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3.2 Information on ingredients:

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
VERU	556-67-2	Octamethyl cyclotetrasiloxane		<0.3	R

Type: HYD - by-product upon hydrolysis, INHA - ingredient, NEBE - by-product, MONO - residual monomer, VERU - impurity, VUL - by-product upon vulcanization. *** **Note:** C1 - IARC carcinogen, C2 - NTP carcinogen, C3 - OSHA carcinogen, NH - non-hazardous, R - reproductive toxin.

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 non-carcinogenic 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.

4. First-aid measures**4.1 General information:**

Get medical attention if irritation or other symptoms occur. Before seeking medical attention remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.

4.2 After inhalation

If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

4.3 After contact with the skin

Remove material with a waterless skin cleaner from skin and clothing. Wash with soap and water.

4.4 After contact with the eyes

If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min.

4.5 After swallowing

For ingestion, if conscious, give several glasses of water but do not induce vomiting. Indicate the possible formation of methanol. Get medical attention immediately.

4.6 Advice for the physician

Treat symptomatically.

5. Fire-fighting measures**5.1 Flammable properties:**

Property:	Value:	Method:
Flash point.....	> 150 °C (> 302 °F)	(ISO 2719)
Boiling point / boiling range	no data available	
Lower explosion limit (LEL)	not applicable	
Upper explosion limit (UEL).....	not applicable	
Ignition temperature	> 300 °C (> 572 °F)	(DIN 51794)
NFPA Hazard Class (comb./flam.liquid)	IIIB	

5.2 Fire and explosion hazards:

Under certain conditions this material may generate flammable hydrogen gas. Hydrolyzes on contact with moisture releasing ignitable vapors. Explosion limits for hydrolysis product: 4-75.6% v/v (hydrogen) , 5.5-44% v/v (methanol) . Consider possible formation of explosive mixtures with air, for example in uncleaned containers by moisture.

5.3 Recommended extinguishing media:

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

5.4 Unsuitable extinguishing media:

sharp water jet .

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

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

5.6 Fire fighting procedures:

Full turn-out gear and Self Contained Breathing Apparatus (SCBA) should be worn when fighting large fires. Cool endangered containers with water.

6. Accidental release measures**6.1 Precautions:**

Wear personal protection equipment (see section 8). Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols.

HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering sewers or surface waters. Contain any fluid that runs out using suitable material (e.g. earth).

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

Do not flush away with water. Take up mechanically and dispose of according to local/state/federal regulations. Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner.

6.4 Further information:

Eliminate all sources of ignition. Do not seal collecting vessel gas-tight. Observe notes under section 7.

7. Handling and storage**7.1 Handling****Precautions for safe handling:**

Open and handle container with care. Ensure adequate ventilation. Keep away from incompatible substances in accordance with section 10.

Precautions against fire and explosion:

Product can release hydrogen. Product can separate methanol. In partly emptied containers formation of explosive mixtures is possible. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging.

7.2 Storage**Conditions for storage rooms and vessels:**

Protect against light. Do not store in virgin glass containers with basic surface.

Advice for storage of incompatible materials:

Keep away from alkalis.

Further information for storage:

Protect against moisture. Store in original container only. Keep container tightly closed and store in a well-ventilated place.

8. Exposure controls and personal protection**8.1 Engineering controls****Ventilation:**

Use with adequate ventilation.

Local exhaust:

No special ventilation required.

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8.2 Associate substances with specific control parameters such as limit values**Maximum airborne concentrations at the workplace:**

CAS No.	Material	Type	mg/m ³	ppm	Dust fract.
67-56-1	Methanol	OSHA PEL	260.0	200.0	
67-56-1	Methanol	ACGIH TWA		200.0	

Re Methanol (CAS-no. 67-56-1): STEL is 250 ppm, skin notation (ACGIH); STEL is 250 ppm, skin notation (NIOSH).

none known

Further information:Maximum concentration at workplace recommended by producer: octamethylcyclotetrasiloxane (D4, CAS no. 556-67-2) = 10 ppm (123 mg/m³).**8.3 Personal protection equipment (PPE)****Respiratory protection:**

Respiratory protection is not normally required.

Hand protection:

Any liquid-tight rubber or vinyl 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:

Avoid contact with eyes, skin and clothing. Avoid breathing dust/vapor/mist/gas/aerosol. When handling do not eat, drink, smoke or apply cosmetics. Wash thoroughly after handling.

9. Physical and chemical properties**9.1 Appearance**

Physical state / form.....: liquid (25 °C (77 °F))

Colour: clear

Odour: faint

9.2 Safety parameters**Property:****Value:****Method:**

Melting point / melting range: no data available

Boiling point / boiling range: no data available

Flash point.....: > 150 °C (> 302 °F)

(ISO 2719)

Ignition temperature: > 300 °C (> 572 °F)

(DIN 51794)

Lower explosion limit (LEL): not applicable

Upper explosion limit (UEL).....: not applicable

Vapour pressure.....: no data available

Density: 0.97 g/cm³ at 25 °C (77 °F), at 1013 hPa

Water solubility / miscibility.....: virtually insoluble

pH-Value: not applicable

Viscosity (dynamic): 200 mPa.s at 25 °C (77 °F)

(DIN EN ISO 3219)

9.3 Further information

Explosion limits for released hydrogen: 4 - 75.6%(V). Explosion limits for released methanol: 5.5 - 44%(V).

Odour limit: no data available

10. Stability and reactivity**10.1 General information:**

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

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10.2 Conditions to avoid

direct sunlight , 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

Reacts with: alkalis , amines , strong acids , oxidizing agents . Reaction causes the formation of: hydrogen and methanol .

10.4 Hazardous decomposition products

hydrogen . Under the effect of humidity, water and protic agents: methanol . Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation. Measurements have shown the formation of small amounts of benzene at temperatures above about 180 °C (356 °F).

10.5 Further information:

Hazardous polymerization cannot occur.

11. Toxicological information

11.1 Information on toxicological effects

11.1.1 General information

Data derived for the product as a whole are of higher priority than data for single ingredients.

11.1.2 Acute toxicity

Assessment:

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

Acute toxicity estimate (ATE):

ATE_{mix} (oral): > 2000 mg/kg

11.1.3 Skin corrosion/irritation

Assessment:

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

11.1.4 Serious eye damage / eye irritation

Assessment:

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

11.1.5 Respiratory or skin sensitization

Assessment:

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

11.1.6 Germ cell mutagenicity

Assessment:

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

11.1.7 Carcinogenicity

Assessment:

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

Data related to ingredients:

Octamethylcyclotetrasiloxane (D4, Impurity):

In a two year combined chronic toxicity and carcinogenicity inhalation study with octamethylcyclotetrasiloxane (OMCTS/D4) in rats, an increased incidence of (uterine) endometrial cell hyperplasia and endometrial adenomas were observed at the highest exposure level of 700 ppm in female rats. These same effects were not seen at the other dose levels of 10, 30, and 150 ppm. Since these effects only occurred at 700 ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing OMCTS/D4 would result in a significant risk to humans.

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Decamethylcyclopentasiloxane (D5, Impurity):

In a two year combined chronic toxicity and carcinogenicity inhalation study with decamethylcyclopentasiloxane (D5) in rats, an increased incidence for (uterine) endometrial tumors was observed in the highest exposure level of 160 ppm in female rats. The same effects were not seen at the other dose levels of 10 and 40 ppm. Whether or not this increase in incidence is truly related to the exposure to D5 is questionable and yet to be determined. Based on our present knowledge it is unlikely that industrial, commercial or consumer uses of products containing D5 would result in a significant risk to humans.

11.1.8 Reproductive toxicity**Assessment:**

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

Data related to ingredients**Octamethylcyclotetrasiloxane (D4, Impurity):**

In a two generation reproductive study via inhalation with OMCTS/D4 rats, decreased mean live litter size and prolonged labor (dystocia) were observed at the 500 ppm and 700 ppm exposure levels. The relevance of these effects in humans cannot be determined at this time. Because these effects are only seen at very high exposure levels, it is unlikely that industrial, commercial and/or consumer uses of products containing OMCTS/D4 would result in a significant risk to humans. Based on animal experiments there is no indication of developmental effects.

11.1.9 Specific target organ toxicity (single exposure)**Assessment:**

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

11.1.10 Specific target organ toxicity (repeated exposure)**Assessment:**

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

11.1.11 Aspiration hazard**Assessment:**

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

11.1.12 Further toxicological information

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 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 carcinogen or potential carcinogen by OSHA.

12. Ecological information**12.1 Toxicity****Assessment:**

For the product as a whole, no test data is available. According to current knowledge adverse effects on water purification plants are not expected.

12.2 Persistence and degradability**Assessment:**

Silicone content: biologically not degradable. Elimination by adsorption to activated sludge.

12.3 Bioaccumulative potential**Assessment:**

For the product as a whole, no test data is available.

12.4 Mobility in soil**Assessment:**

Silicone content: Absorbed by floating particles. Separation by sedimentation.

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12.5 Other adverse effects

none known

13. Disposal considerations**13.1 Product disposal**

Recommendation:

Risk of hydrogen gas formation with water, alcohols, acids, metallic salts, amines and alkalis. In combination with oxygen, the released hydrogen can form oxyhydrogen. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10. Provide measures such as vented bungs to ensure pressure relief in the waste containers.

Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

13.2 Packaging disposal

Recommendation:

Containers may contain hazardous quantities of hydrogen gas. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

14. Transport information**14.1 US DOT & CANADA TDG SURFACE**

Valuation: Not regulated for transport

14.2 Transport by sea IMDG-Code

Valuation: Not regulated for transport

14.3 Air transport ICAO-TI/IATA-DGR

Valuation: Not regulated for transport

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:

Delayed (chronic) health hazard.

SARA 313 Chemicals:

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

HAPS (Hazardous Air Pollutants):

CAS No.	Chemical	Upper limit wt. %
67-56-1	Methanol	<=0.0023

15.2 U.S. State regulations**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):**

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

California Proposition 65 Reproductive Toxins:

67-56-1 Methanol

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Massachusetts Substance List:

This material contains no listed components.

New Jersey Right-to-Know Hazardous Substance List:

This material contains no listed components.

Pennsylvania Right-to-Know Hazardous Substance List:

This material contains no listed components.

15.3 Details of international registration status

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

South Korea (Republic of Korea)	ECL (Existing Chemicals List): This product is listed in, or complies with, the substance inventory.
Japan	ENCS (Handbook of Existing and New 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 not listed or in compliance 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 (Republic of China).....	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.

16. Other information**16.1 Additional 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.

All deliveries are subject to the WACKER SILICONES Health Care Policy, which is available at www.wacker.com.

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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
 WHMIS - Canadian Workplace Hazardous Materials Identification System

Flash point determination methods

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

Common name**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)