WACKER SILICONES

Material Safety Data Sheet

Material: 60005447 **WACKER® RTV-S 695 B**

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1. Product and company identification

1.1 Identification of the substance or preparation:

Commercial product name: **WACKER® RTV-S 695 B**

Use of substance / preparation: Industrial.
Raw material for: elastomer products .

1.2 Company/undertaking identification:

Manufacturer/distributor:
Wacker Chemie AG
Hanns-Seidel-Platz 4
81737 München
Germany

Customer information:
Wacker Chemical Corporation
3301 Sutton Road
Adrian, Michigan 49221-9397
USA
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 MSDS was prepared by the Regulatory Affairs and Product Safety Department (RAPS) of Wacker Chemical Corporation.

2. Composition/information on ingredients

2.1 Chemical characterization (preparation)

Chemical characteristics
Polysiloxane with functional groups + auxiliary

2.2 Information on ingredients:

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
INHA	68037-60-5	Polydimethyl diphenylmethyl hydrogen siloxane	49.0	50.0	NH
INHA		hydrogen-functional polysiloxane			NH

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 Section 2 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.

3. Hazards identification

3.1 Hazards classifications

HMIS® rating (product as packaged):
Health: 1 Fire: 1 Reactivity: 2 PPE: B

Hazardous Materials Identification System and HMIS are registered trademarks of the National Paint and Coatings Association. (HMIS codes are based on contact with the product as packaged and any hydrolysis by-products, if present.)

Canadian WHMIS Classification: None.

3.2 Emergency overview and potential hazards

This material is not hazardous under OSHA criteria. This material is not hazardous under WHMIS criteria.

Signal Word:
CAUTION

Physical Hazards:
Under certain conditions this material may generate flammable hydrogen gas.

Acute health effects
Route of entry or possible contact:
eyes , skin , inhalation
Eye contact:
May cause slight eye irritation.
Skin contact:
No acute toxic effects are expected.
Inhalation:
No acute toxic effects are expected.
Ingestion:
Not expected in industrial use.

3.3 Further information:

Chronic health effects:
none known

Medical conditions which may be aggravated by exposure:
unknown

Carcinogens/Reproductive toxins:
none known

See Section 11 for Toxicological Information, if any.

4. First-aid measures

4.1 General information:

4.2 After inhalation

No special measures required.

4.3 After contact with the skin

Remove material with a waterless skin cleaner from skin and clothing. Wash then with plenty of water or water and soap. Get medical attention if symptoms occur.

4.4 After contact with the eyes

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

4.5 After swallowing

If swallowed, induce vomiting. Get medical attention. Designate the product.

5. Fire-fighting measures

5.1 Flammable properties:

Property:	Value:	Method:
Flash point:	> 250 °C (> 482 °F)	(DIN 51376)
Boiling point / boiling range:	not applicable	
Lower explosion limit (LEL):	not applicable	
Ignition temperature:	> 400 °C (> 752 °F)	(DIN 51794)

5.2 Fire and explosion hazards:

Caution! This product is not flammable but it may evolve flammable hydrogen gas under certain conditions, which may accumulate in the container headspace. Do not use a welding or cutting torch on or near any container of this material, even if empty, because an explosion could occur. Spontaneous ignition is possible due to electrostatic discharge. The generation of hydrogen gas is increased under circumstances mentioned in Sect. 10 "Stability and reactivity". Contact with contaminated piping or vessels or with corroded and rusty containers can increase the rate of hydrogen formation.

5.3 Recommended extinguishing media:

carbon dioxide , alcohol-resistant foam foam-type extinguishing media extinguishing media

5.4 Unsuitable extinguishing media:

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

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5.6 Fire fighting procedures:

Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Do not use: dry chemical extinguishers , water or halones .

6. Accidental release measures

6.1 Precautions:

No special measures required.

HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering sewers or surface waters.

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. 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:
Ensure adequate ventilation. Keep away from incompatible substances in accordance with section 10.

Precautions against fire and explosion:
Product can release hydrogen. In partly emptied containers formation of explosive mixtures is possible. Keep away from sources of ignition and do not smoke. Keep away from open flames, heat and sparks. Take precautionary measures against electrostatic charging.

7.2 Storage

Conditions for storage rooms and vessels:
-

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 only with adequate ventilation.

Local exhaust:
yes

8.2 Associate substances with specific control parameters such as limit values

8.3 Personal protection equipment (PPE)

Respiratory protection:
not recommended

Hand protection:
recommended

Eye protection:
chemical safety goggles recommended

Other protective clothing or equipment:
not recommended

9. Physical and chemical properties

9.1 Appearance

Physical state / form	:	liquid
Colour	:	transparent
Odour	:	odourless

9.2 Safety parameters

Property:		Value:	Method:
Melting point / melting range	:	not applicable	
Boiling point / boiling range	:	not applicable	
Flash point	:	> 250 °C (> 482 °F)	(DIN 51376)
Ignition temperature	:	> 400 °C (> 752 °F)	(DIN 51794)
Lower explosion limit (LEL)	:	not applicable	
Vapour pressure	:	not applicable	
Density	:	approx. 1 g/cm³ at 20 °C (68 °F)	(DIN 51757)
Water solubility / miscibility	:	virtually insoluble at 20 °C (68 °F)	
pH-Value	:	not applicable	
Viscosity (dynamic)	:	approx. 6000 mPa.s at 20 °C (68 °F)	

9.3 Further information

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

Thermal decomposition : > 200 °C (> 392 °F)

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

none known

10.3 Materials to avoid

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

10.4 Hazardous decomposition products

hydrogen . 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.
Conditions to avoid hazardous polymerization: none known

11. Toxicological information

11.1 Information on toxicological effects

Toxicological testing has not been conducted with this material.

11.1.1 Acute toxicity

Assessment:

Based on the available data acute toxic effects are not expected after single oral exposure. Based on the available data acute toxic effects are not expected after single dermal exposure.

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD_{50}: > 2000 mg/kg No mortality with the given dose.	rat	test report
oral	LD_{50}: > 15000 mg/kg	rat	Conclusion by analogy
dermal	LD_{50}: > 2000 mg/kg No mortality with the given dose.	rabbit	test report

11.1.2 Skin corrosion/irritation

Assessment:

Based on the available data a clinically relevant skin irritation hazard is not expected.

Product details:

Result/Effect	Species/Test system	Source
not irritating	rabbit	Conclusion by analogy

11.1.3 Serious eye damage / eye irritation

Assessment:

Based on the available data a clinically relevant eye irritation hazard is not expected.

Product details:

Result/Effect	Species/Test system	Source
not irritating	rabbit	Conclusion by analogy

11.1.4 Respiratory or skin sensitization

Assessment:

Based on the available data a sensitization reaction is not expected from this product.

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
dermal	not sensitizing	guinea-pig; Magnusson-Kligman	Conclusion by analogy OECD 406

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.

12. Ecological information

12.1 Toxicity

Assessment:

Evaluation in analogy to similar product. No expected damaging effects to aquatic organisms. 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:

Bioaccumulation is not expected to occur.

12.4 Mobility in soil

Assessment:

Forms thin oil film on surface of water. Absorbed by floating particles. Separation by sedimentation.

12.5 Other adverse effects

none known

13. Disposal considerations

13.1 Product disposal

Recommendation:
Danger of oxyhydrogen gas formation with water, alcohols, acids, metallic salts, amines and alkalis. Material designated for disposal must be segregated from incompatible substances or materials specified in Sect. 10. 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

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

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 any TSCA 12(b) regulated 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:
This product does not present any SARA 311/312 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 Carcinogens:
This material does not contain any chemicals known to the state of California to cause cancer.

California Proposition 65 Reproductive Toxins:
This material does not contain any chemicals known to the State of California to cause reproductive effects.

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 Canadian regulations

This product has been classified in accordance with the Hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Hazard Classes:
None.

DSL Status:
This material or one or more of its components is not listed on the Canadian Domestic Substances List. However, the material or some of it's components are listed on the NDSL (Non-Domestic Substances List).

Non-DSL Chemicals:

CAS No.	Chemical	Upper limit wt. %
Confidential	Wacker Proprietary Non-DSL Polymer	50.0

Canadian Ingredient Disclosure List:
This material contains no listed components.

15.4 Other international regulations

Details of international registration status
Listed on or in accordance with the following inventories:
TSCA - USA
EINECS - Europe
AICS - Australia
ECL - Korea
IECSC - China
ENCS - Japan
PICCS - Philippines

16. Other information

16.1 Additional information:

This Material Safety Data Sheet (MSDS) meets the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. 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 MSDS 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.

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	**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)