

# Safety Data Sheet

Material: 60002692

**WACKER® AK 100  
SILICONE FLUID**

Version: 1.4 (INTL-GHS)

Date of print: 15.10.2018

Date of last alteration: 13.06.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Commercial product name:** WACKER® AK 100  
SILICONE FLUID**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use of substance / preparation:

Industrial.

Intermediate chemical

**1.3 Details of the supplier of the safety data sheet****Manufacturer/distributor:** Wacker Chemie AG  
**Street/POB-No.:** Hanns-Seidel-Platz 4  
**State/postal code/city:** D 81737 München  
**Telephone:** +49 89 6279-0  
**Telefax:** +49 89 6279-1770**Information about the Safety Data Sheet:** Telephone +49 8677 83-4888  
Telefax +49 8677 886-9722  
eMail WLCP-MSDS@wacker.com**1.4 Emergency telephone number****Emergency Information (German):** Plant fire brigade +49 8677 83-2222  
**Emergency Information (internat.):** National Response Center +49 621 60-43333**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Not a hazardous substance or mixture.

**2.2 Label elements**

No labeling according to GHS required.

**2.3 Other hazards**

No data available.

**SECTION 3: Composition/information on ingredients****3.1 Substances****3.1.1 Chemical characteristics**

Polydimethylsiloxane

**3.1.2 Hazardous ingredients**

This material does not contain any ingredients above the permitted limit(s).

**3.2 Mixtures**

not applicable

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:**

In case of accident or if you feel unwell seek medical advice (show label or SDS where possible).

**After contact with the eyes:**

Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

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**After contact with the skin:**

Wash with plenty of water or water and soap. In the event of a visible skin change or other complaints, seek medical advice (show label or SDS where possible).

**After inhalation:**

Provide fresh air.

**After swallowing:**

Give several small portions of water to drink. Do not induce vomiting.

**4.2 Most important symptoms and effects, both acute and delayed**

Any relevant information can be found in other parts of this section.

**4.3 Indication of any immediate medical attention and special treatment needed**

Further toxicology information in section 11 must be observed.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media:**

water mist , extinguishing powder , alcohol-resistant foam , carbon dioxide , sand .

**Extinguishing media which must not be used for safety reasons:**

water jet .

**5.2 Special hazards arising from the substance or mixture**

Risk of hazardous gasses or fumes in the event of fire. Exposure to combustion products may be a health hazard! Hazardous combustion products: toxic and very toxic fumes .

**5.3 Advice for firefighters****Special protective equipment for fire fighting:**

Use respiratory protection independent of recirculated air. Keep unprotected persons away.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

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.

**6.2 Environmental precautions**

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

**6.3 Methods and material for containment and 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 Reference to other sections**

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

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

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**Precautions for safe handling:**

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:**

Observe the general rules for fire prevention.

**7.2 Conditions for safe storage, including any incompatibilities****Conditions for storage rooms and vessels:**

Observe local/state/federal regulations.

**Advice for storage of incompatible materials:**

Observe local/state/federal regulations.

**Further information for storage:**

Store in a dry and cool place.

**Maximum temperature allowed during storage and transportation: 50 °C**

**7.3 Specific end use(s)**

No data available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Maximum airborne concentrations at the workplace:**

CAS No.	Material	Type	mg/m <sup>3</sup>	ppm	Dust fract.	Fibre/m <sup>3</sup>
	Aerosol - inhalable fraction		10,0			

The aerosol limit specified is a recommendation should aerosol be formed during processing.

**8.2 Exposure controls****8.2.1 Exposure in the work place limited and controlled****General protection and hygiene measures:**

Observe standard industrial hygiene practices for the handling of chemical substances. Do not eat, drink or smoke when handling.

**Personal protection equipment:****Respiratory protection**

No personal respiratory protective equipment normally required.

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Filtering half-face mask, according to acknowledged standards such as EN 149.

Recommended Filter type: FFP1 or equivalent filter, according to acknowledged standards such as EN 149

Observe the equipment manufacturer's information and wear time limits for respirators.

**Eye protection**

Recommendation: protective goggles .

**Hand protection**

Use of protective gloves is recommended when handling the material.

Recommended glove types: Protective gloves made of nitrile rubber  
thickness of the material: > 0,1 mm

Breakthrough time: > 480 min

Recommended glove types: Protective gloves made of butyl rubber  
thickness of the material: > 0,3 mm

Breakthrough time: > 480 min

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Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Note that, due to the numerous external influences (such as temperature), a chemically resistant protective glove in daily use may have a service life that is considerably shorter than the measured break through time.

**8.2.2 Exposure to the environment limited and controlled**

Prevent material from entering surface waters, drains or sewers and soil.

**8.3 Further information for system design and engineering measures**

Observe information in section 7. Observe national regulatory requirements.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Property:	Value:	Method:
<b>Appearance</b>		
Physical state / form .....	liquid	
Colour.....	colourless, clear	
<b>Odour</b>		
Odour .....	odourless	
<b>Odour limit</b>		
Odour limit :	no data available	
<b>pH-Value</b>		
pH-Value .....	approx. 7	
<b>Melting point/freezing point</b>		
Melting point / melting range .....	-55 °C	(-)
<b>Initial boiling point and boiling range</b>		
Boiling point / boiling range .....	not determinable	(EU-GL.A.2)
<b>Flash point</b>		
Flash point.....	> 275 °C	(ISO 2592)
Flash point.....	> 150 °C	(EN 22719)
Flash point.....	327 °C	(JIS K2265-4)
<b>Evaporation rate</b>		
Evaporation rate .....	no data available	
<b>Upper/lower flammability or explosive limits</b>		
Lower explosion limit (LEL) .....	not applicable	
Upper explosion limit (UEL).....	not applicable	
<b>Vapour pressure</b>		
Vapour pressure.....	< 0,1 hPa / 20 °C	
<b>Solubility(ies)</b>		
Water solubility / miscibility .....	virtually insoluble	
<b>Vapour density</b>		
Relative gas/vapour density .....	No data known.	
<b>Relative Density</b>		
Relative Density .....	approx. 0,96 (25 °C) (Water / 4 °C = 1,00)	(DIN 51757)
Density .....	approx. 0,96 g/cm <sup>3</sup> (25 °C)	(DIN 51757)
<b>Partition coefficient: n-octanol/water</b>		
Partition coefficient: n-octanol/water.....	No data known.	
<b>Auto-ignition temperature</b>		
Ignition temperature .....	395 °C	(EN 14522)
<b>Decomposition temperature</b>		
Thermal decomposition .....	Decomposition begins at > 250 °C	
<b>Viscosity</b>		
Viscosity (dynamic) .....	95 - 105 mPa.s at 25 °C	(DIN 53019)
Viscosity (kinematic).....	approx. 100 mm <sup>2</sup> /s at 25 °C	(DIN 53019)
<b>Molecular mass</b>		
Molecular mass .....	no data available	

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**9.2 Other information**

No data available.

**SECTION 10: Stability and reactivity****10.1 – 10.3 Reactivity; Chemical stability; Possibility of hazardous reactions**

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

Relevant information can possibly be found in other parts of this section.

**10.4 Conditions to avoid**

none known

**10.5 Incompatible materials**

none known

**10.6 Hazardous decomposition products**

If stored and handled properly: none known . Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 °C (302 °F) through oxidation.

**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 <sub>50</sub> : > 5000 mg/kg Neither mortality nor clinical signs of toxicity were observed with the given dose.	rat	literature (Polydimethylsiloxane)
dermal	LD <sub>50</sub> : > 2008 mg/kg Neither mortality nor clinical signs of toxicity were observed with the given dose.	rat	literature (Polydimethylsiloxane)

**11.1.2 Skin corrosion/irritation****Product details:**

Result/Effect	Species/Test system	Source
not irritating	rabbit	literature (Polydimethylsiloxane)

**11.1.3 Serious eye damage / eye irritation****Product details:**

Result/Effect	Species/Test system	Source
not irritating	rabbit	literature (Polydimethylsiloxane)

**11.1.4 Respiratory or skin sensitization****Product details:**

Route of exposure	Result/Effect	Species/Test system	Source
dermal	not sensitizing	guinea-pig; Magnusson-Kligman	literature (Polydimethylsiloxane) OECD 406

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**11.1.5 Germ cell mutagenicity****Assessment:**

Based on known data a significant mutagenic potential may be excluded.

**Product details:**

Result/Effect	Species/Test system	Source
negative	mutation assay (in vitro) bacterial cells	literature (Polydimethylsiloxane) OECD 471

**11.1.6 Carcinogenicity****Assessment:**

Animal tests have not revealed any carcinogenic effects.

**Product details:**

Result/Effect	Species/Test system	Source
NOAEL: $\geq 1000$ mg/kg NOAEL= NOAEL (carcinogenic effects)	carcinogenicity study rat (F344) oral (feed) 2 a	literature (Polydimethylsiloxane)

**11.1.7 Reproductive toxicity****Assessment:**

Animal tests have shown no indications of possibility of damage to embryo and impairment of fertility.

**Product details:**

Result/Effect (Examinations of developmental toxicity and teratogenicity)	Species/Test system	Source
NOAEL (developmental): $\geq 1000$ mg/kg NOAEL (maternal): $\geq 1000$ mg/kg Symptoms/Effect: Nothing abnormal detected.	Developmental Toxicity Study rabbit oral (gavage) ; day 6 - 19 of gestation	literature (Polydimethylsiloxane)

**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.

**Product details:**

Result/Effect	Species/Test system	Source
NOAEL: $\geq 1000$ mg/kg NOAEL = NOAEL (systemic effects)	chronic study rat oral (feed) 1 a Follow-up observation period: 1 a	literature (Polydimethylsiloxane)

**11.1.10 Aspiration hazard****Assessment:**

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

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**11.1.11 Further toxicological information**

Human patch test: Product displays good compatibility with the skin.

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

Based on available data no effects on aquatic organisms that are relevant for classification must be expected for the product up to its limits of water solubility. According to current knowledge adverse effects on water purification plants are not expected.

**Product details:**

Result/Effect	Species/Test system	Source
> 1000 mg/l (nominal) effect level > maximum achievable concentration	static (water-accommodated fraction) Fish (96 h)	literature
EC <sub>50</sub> : > 0,0001 mg/l (measured) effect level > maximum achievable concentration	static (water-accommodated fraction) Daphnia magna (48 h)	literature
IC <sub>50</sub> (growth rate): > 100000 mg/l (nominal)	static (water-accommodated fraction) Marine alga (skeleonema costatum) (72 h)	literature
NOEC: > 10000 mg/kg	feeding study rainbow trout (Oncorhynchus mykiss) (28 d)	literature
NOEC (mortality, growth, reproduction): > 500 mg/kg The exposure to treated sediment did not result in effects.	exposure via sediment Daphnia magna (21 d)	literature

**12.2 Persistence and degradability****Assessment:**

Silicone content: biologically not degradable. Elimination by adsorption to activated sludge. Polydimethylsiloxanes are degradable to a certain extent in abiotic processes.

**12.3 Bioaccumulative potential****Assessment:**

Polymer component: Bioaccumulation is not expected to occur.

**12.4 Mobility in soil****Assessment:**

Polymer component: insoluble in water. Adsorbs on soil.

**12.5 Other adverse effects**

none known

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****13.1.1 Material****Recommendation:**

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.

**13.1.2 Uncleaned packaging****Recommendation:**

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.

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**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

**14.5 Environmental hazards**

Hazardous to the environment: no

**14.6 Special precautions for user**

Relevant information in other sections has to be considered.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

Bulk transport in tankers is not intended.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

**15.2 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.

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 (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.

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**SECTION 16: Other information****16.1 Material**

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.

All deliveries are subject to the WACKER SILICONES Health Care Policy, which is available at [www.wacker.com](http://www.wacker.com).

**16.2 Further information:**

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

**- End of Safety Data Sheet -**