WACKER

SAFETY DATA SHEET According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Material: 60002663 **WACKER® AK 5 SILICONE FLUID**

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Commercial product name: **WACKER® AK 5 SILICONE FLUID**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of substance / preparation:
Industrial.
Intermediate chemical

This product is a polymer, which is exempted from registration according to (EC) regulation 1907/2006, article 2.

1.3 Details of the supplier of the safety data sheet

Manufacturer/distributor:	Wacker Chemie AG	
Street/POB-No.:	Gisela-Stein-Straße 1	
State/postal code/city:	D 81671 München	
Telephone:	+49 89 6279-0	
Contact point:	Wacker Chemicals Ltd.	
Street/POB-No.:	2 Arlington Square, Downshire Way	
Postal code/city:	Bracknell RG12 1WA	
Country:	United Kingdom	
Telephone:	+44 1344 401 670	
Information about the Safety Data Sheet:	Telephone	+49 8677 83-4888
	eMail	WLCP-MSDS@wacker.com

1.4 Emergency telephone number

Emergency Information: **+44 1273 289451**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567):

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567):

No labeling according to GHS required.

2.3 Other hazards

No data available.
Endocrine disrupting properties - human health: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Endocrine disrupting properties - environment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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).

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) in amounts above ≥ 0.1%.

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.

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

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

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
A temporary increase in temperature during transport does not impair quality. Actively cooled transport guide can be dispensed with.

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:

Substance	Type	mg/m³	ppm	Dust fract.	Fibre/m³
Aerosol - inhalable fraction		10,0			

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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.

Further information for system design and engineering measures

Observe information in section 7. Observe national regulatory requirements.

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

Protective goggles, according to acknowledged standards such as EN 166, are recommended.

Hand protection

Use of protective gloves is recommended when handling the material, according to recognized standards such as EN374.

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

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property:	Value:	Method:
Physical state	liquid	
Colour	colorless transparent	
Odour	odourless	
Odour Threshold	no data available	
Melting point	-65 °C at 1013 hPa	(Lit.)
Boiling point/boiling range	325 °C at 1013 hPa	(EU-GL.A.2)
Lower explosion limit	exempt	
Upper explosion limit	exempt	
Flash point	130 °C	(EN 22719)
Flash point	148 °C	(ISO 2719)
Ignition temperature	350 °C	(EN 14522)
Thermal decomposition	250 °C	(Lit.)

pH	:	Not applicable. Insoluble in water.	
Viscosity, kinematic	:	5 mm²/s at 25 °C	(DIN 53019)
Viscosity, dynamic	:	5 mPa.s at 25 °C	(DIN 53019)
Water solubility	:	practically insoluble	
Partition coefficient: n-octanol/water	:	no data available	
Vapour pressure	:	exempt	
Density	:	0,92 g/cm³ (25 °C)	(DIN 51757)
Relative vapour density	:	no data available	
Particle Size Distribution	:	Not applicable.	

9.2 Other information

No data available.

Property:		**Value:**	**Method:**
Evaporation rate	:	no data available	
Molecular weight	:	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 hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Acute toxicity

Product details:

Exposure routes	Result/Effect
Oral	LD50 > 5000 mg/kg Neither mortality nor clinical signs of toxicity were observed with the given dose. Species: Rat, Source: literature
dermal	LD50 > 2000 mg/kg Neither mortality nor clinical signs of toxicity were observed with the given dose. Species: Rat, Source: literature

11.1.2 Skin corrosion/irritation

Product details:

No skin irritation (Species: Rabbit, Source: literature)

11.1.3 Serious eye damage/eye irritation

Product details:

No eye irritation (Species: Rabbit, Source: literature)

11.1.4 Respiratory or skin sensitization

Product details:

Exposure routes	Result
Skin contact	Does not cause skin sensitization. (Species: Guinea pig, Test system: Maximisation Test, Method: OECD 406, Source: literature)
Inhalation	No data available.

11.1.5 Germ cell mutagenicity

Assessment:

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

negative (Test system: mutation assay (in vitro) / bacterial cells, Method: OECD 471, Source: literature)

11.1.6 Carcinogenicity

Assessment:

Animal tests have not revealed any carcinogenic effects.

Product details:

NOAEL: >= 1000 mg/kg NOAEL= NOAEL (carcinogenic effects) (Test system: carcinogenicity study, Species: Rat, Strain: Fischer F344, Application Route: Oral, Route of administration: feed, Test period: 2 a, Test substance: Polydimethylsiloxane, Source: literature)

11.1.7 Reproductive toxicity

Assessment:

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

Product details:

Reproductive Toxicity/Development/Teratogenicity
NOAEL (developmental): >= 1000 mg/kg NOAEL (maternal): >= 1000 mg/kg (Symptoms/Effect: Nothing abnormal detected., Test system: Developmental Toxicity Study, Species: Rabbit, Application Route: Oral, Route of administration: gavage, Frequency of Treatment: day 6 - 19 of gestation, Test substance: Polydimethylsiloxane, Source: literature)

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:

In animal experiments with repeated exposure no effects with relevance for humans were observed.

Product details:

Result/Effect
NOAEL: >= 1000 mg/kg NOAEL = NOAEL (systemic effects) (Test system: chronic study, Species: Rat, Application Route: Oral, Route of administration: feed, Test period: 1 a, Subsequent observation period: 1 a, Source: literature)

11.1.10 Aspiration hazard

Assessment:

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

11.2.2 Further toxicological information

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

SECTION 12: Ecological information

12.1 Toxicity

Assessment:

Evaluation on basis of physical-chemical properties: No expected damaging effects to aquatic organisms.

Product details:

Result/Effect	Species/Test system	Source
LL50: > 1000 mg/l (nominal) The effect level is greater than the maximum achievable concentration. The value refers to the water-accommodated fraction (WAF).	static test Fish (96 h)	literature
EC50: > 0,0001 mg/l (measured) The effect level is greater than the maximum achievable concentration. The value refers to the water-accommodated fraction (WAF).	static test Daphnia magna (Water flea) (48 h)	literature
IC50 (Growth rate): > 100000 mg/l (nominal) The effect level is greater than the maximum achievable concentration. The value refers to the water-accommodated fraction (WAF).	static test Skeletonema costatum (marine diatom) (72 h)	literature
NOEC: > 10000 mg/kg	feeding study Oncorhynchus mykiss (rainbow trout) (28 d)	literature
NOEC (mortality): > 500 mg/kg The exposure to treated sediment did not result in effects.	exposure via sediment Daphnia magna (Water flea) (21 d)	literature
NOEC (Growth): > 500 mg/kg The exposure to treated sediment did not result in effects.	exposure via sediment Daphnia magna (Water flea) (21 d)	literature
NOEC (reproduction rate): > 500 mg/kg The exposure to treated sediment did not result in effects.	exposure via sediment Daphnia magna (Water flea) (21 d)	literature

12.2 Persistence and degradability

Assessment:

Polymer component: biologically not degradable. Elimination by adsorption to activated sludge.

12.3 Bioaccumulative potential

Assessment:

Polymer component: No adverse effects expected.

12.4 Mobility in soil

Assessment:

Polymer component: insoluble in water.

12.5 Results of PBT and vPvB assessment

PBT assessment
No data available.

vPvB Assessment
No data available.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 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.

13.1.3 Waste Disposal Legislation Ref.No.(EC)

It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

SECTION 14: Transport information

14.1 UN number or ID number

ADR .....: Not applicable
RID.....: Not applicable
IMDG.....: Not applicable
ICAO/IATA .....: Not applicable

14.2 Proper shipping name

ADR .....: Not applicable
RID.....: Not applicable
IMDG.....: Not applicable
ICAO/IATA .....: Not applicable

14.3 Transport hazard class

ADR .....: Not applicable
RID.....: Not applicable
IMDG.....: Not applicable
ICAO/IATA .....: Not applicable

14.4 Packing group

ADR .....: Not applicable
RID.....: Not applicable
IMDG.....: Not applicable
ICAO/IATA .....: Not applicable

14.5 Environmental hazards

Environmentally hazardous: no

14.6 Special precautions for user

Relevant information in other sections has to be considered.

14.7 Maritime transport in bulk according to IMO instruments

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.

Control of Major Accident Hazards Regulations 2015 (COMAH)

Not applicable

Relevant regulations:
SI 2002/1689: CHIP Regulations 2002
SI 2002/2677: COSHH Regulations 2002
SI 1999/3242: Management of Health & Safety at Work Regulations 1999
Health & Safety at Work Act 1974
SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.
Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

Other specifications, restrictions and prohibitions:

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors - ANNEX I. RESTRICTED EXPLOSIVES PRECURSORS: Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors - ANNEX II. REPORTABLE EXPLOSIVES PRECURSORS: Not applicable

Details of international registration status

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

Japan	:	**ENCS** (Handbook of Existing and New Chemical Substances): This product is listed in, or complies with, the substance inventory.
New Zealand	:	**NZIoC** (New Zealand Inventory of Chemicals): This product is listed in, or complies with, the substance inventory. (For a correct interpretation of the New Zealand status, additional information like GHS classification or Group Standard is required.)
Australia	:	**AIIC** (Australian Inventory of Industrial Chemicals): This product is listed in, or complies with, the substance inventory.
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	:	**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.
South Korea (Republic of Korea)	:	**AREC** (Act on Registration and Evaluation of Chemicals; “K-REACH”): Please approach your regular contact for more detailed information.

15.2 Chemical safety assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) is not required for this product.

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.

WACKER restricts the use of its products inside the human body or in contact with bodily fluids and mucosa. For further details please review our Health Care Policy on www.wacker.com. WACKER may cancel any delivery obligation(s) if the Health Care Policy is not observed.

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.

Key or legend to abbreviations and acronyms used in the safety data sheet

ABEK - Multi-Range Filter A, B, E, K; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; APF - Assigned Protection Factor; CAS No. - Chemical Abstracts Service Registry Number; DFG - German Research Foundation; DIN - German institute for standardization; DOC - Dissolved Organic Carbon; d/w - days per week; EC / CE / EG - European Community; EC50 / CE50 - Median effective concentration; ECHA - European Chemicals Agency; ED - endocrine disruptor; EG-RL - test method according to Regulation 440/2008; EN - European Standard; ERC - Environmental Release Category; g/cm³ - gram per cubic centimeter; h - hour(s); H-Code - hazard statement code(s); hPa - Hectopascal; IATA Regs - International Air Transport Association (IATA) Dangerous Goods Regulations;IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;IC50 / CI50 - half maximal inhibitory concentration;IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IMDG Code - International Maritime Dangerous Goods Code; ISO - International Organization for Standardization; LC50 / CL50 - medium lethal concentration; LD50 / DL50 - medium lethal dose; LOAEC - Lowest Observed Adverse Effect Concentration; LOAEL - Lowest Observed Adverse Effect Level; MARPOL - International Convention for the Prevention of Marine Pollution from Ships; mg/g - milligrams per gram; mg/kg - milligrams per kilogram; mg/l - milligrams per liter; mg/m³ - milligrams per cubic meter; min - minutes; mJ - millijoule; mm - millimeter; mm²/s - square millimeter per second; mPa.s - Millipascal second(s); MSDS / SDB / SDS - safety data sheet; No Observed Adverse Effect Concentration; NOAEL - No Observed adverse effect level; NOEC - No Observed Effect Concentration; NOEL - No Observed Effect Level; OECD - Organization for Economic Cooperation and Development; PBT - persistent, bioaccumulative, toxic; PC - product category; P-Code - precautionary statement code(s); ppm - parts per million; PROC - process category; RCP - reciprocal calculation-based procedure; RID - convention concerning international carriage by rail; SU - sector of use; SVHC - substance of very high concern; Vol% - volume percent; UN No. - United Nations Dangerous Goods Number; vPvB - very Persistent, very Bioaccumulative

- End of Safety Data Sheet -