

Safety Data Sheet

Material: 70702002

AK 50

Version: 2.0 (US)

Date of print: 05/29/2015

Date of last alteration: 05/28/2015

1. Product and company identification

1.1 Identification of the substance or preparation:

Commercial product name: AK 50
Use of substance / preparation: Industrial.
Intermediate chemical

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):
Not a hazardous substance or mixture.

2.2 Label elements

Labelling (GHS):
No labeling according to GHS required.

Reportable ingredients for labelling:
Polydimethyl siloxane

2.3 Other hazards

No data available.

3. Composition/information on ingredients

3.1 Chemical characterization (substance)

Chemical characteristics
Polydimethylsiloxane

3.2 Information on ingredients:

This material does not contain any reportable hazardous ingredients.

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.

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.

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4.2 After inhalation

Material cannot be inhaled under normal conditions. No special measures required.

4.3 After contact with the skin

For skin contact: Wipe off excess material with cloth or paper. Use a waterless hand cleaner to remove as much of the remaining material as possible. 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

After swallowing No special treatment is required.

5. Fire-fighting measures

5.1 Flammable properties:

| Property: | Value: | Method: |
|--|---------------------|------------|
| Flash point..... | > 250 °C (> 482 °F) | (ISO 2592) |
| Flash point..... | > 150 °C (> 302 °F) | (EN 22719) |
| Boiling point / boiling range | not determined | |
| Lower explosion limit (LEL) | not applicable | |
| Upper explosion limit (UEL)..... | not applicable | |
| Ignition temperature | 395 °C (743 °F) | (EN 14522) |
| NFPA Hazard Class (comb./flam.liquid)..... | IIIB | |

5.2 Fire and explosion hazards:

This material does not present any unusual fire or explosion hazards.

5.3 Recommended extinguishing media:

water-mist , carbon dioxide , sand , dry chemical or alcohol-resistant foam .

5.4 Unsuitable extinguishing media:

water-spray , sharp water jet .

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:

Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Cool endangered containers with water.

6. Accidental release measures

6.1 Precautions:

If material is released indicate risk of slipping. Do not walk through spilled material.

HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth). Close leak if possible without risk.

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.

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6.3 Methods for cleaning up

Take up mechanically and dispose of according to local/state/federal regulations. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Apply sand or other inert granular material to improve traction.

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

Spilled substance increases risk of slipping.

Precautions against fire and explosion:

Observe the general rules for fire prevention.

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

none known

Advice for storage of incompatible materials:

not applicable

Further information for storage:

Keep container tightly closed. Store in a dry and cool place.

Maximum temperature allowed during storage and transportation: 50 °C (122 °F)**8. Exposure controls and personal protection****8.1 Engineering controls****Ventilation:**

Use with adequate ventilation.

Local exhaust:

not necessary

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. |
|---------|----------|------|-------------------|-----|-------------|
|---------|----------|------|-------------------|-----|-------------|

none known .

8.3 Personal protection equipment (PPE)**Respiratory protection:**

Respiratory protection is not normally required.

Hand protection:

Recommendation: Any liquid-tight rubber or vinyl gloves.

Eye protection:

Recommendation: 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:

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

Colour : colourless, clear

Odour : odourless

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9.2 Safety parameters

| Property: | Value: | Method: |
|-------------------------------------|--|-------------|
| Melting point / melting range | -55 °C (-67 °F) | |
| Boiling point / boiling range | not determined | |
| Flash point..... | > 250 °C (> 482 °F) | (ISO 2592) |
| Flash point..... | > 150 °C (> 302 °F) | (EN 22719) |
| Ignition temperature | 395 °C (743 °F) | (EN 14522) |
| Lower explosion limit (LEL) | not applicable | |
| Upper explosion limit (UEL)..... | not applicable | |
| Vapour pressure..... | not determined | |
| Density | 0.96 g/cm ³ at 25 °C (77 °F) | |
| Water solubility / miscibility..... | virtually insoluble | |
| pH-Value | approx. 7 | |
| Viscosity (dynamic) | 50 mPa.s at 25 °C (77 °F) | (DIN 53019) |
| Viscosity (kinematic) | approx. 50 mm ² /s at 25 °C (77 °F) | (DIN 53019) |

9.3 Further information

| | |
|--------------------------------------|---|
| Corrosive to Steel or Aluminum | Not corrosive to steel or aluminum. |
| Thermal decomposition | Decomposition begins at > 250 °C (> 482 °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

none known

10.4 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.

10.5 Further information:

Hazardous polymerization cannot occur.

11. Toxicological information

11.1 Information on toxicological effects

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 : > 5000 mg/kg | rat | literature (Polydimethylsiloxane) |
| dermal | LD ₅₀ : > 2008 mg/kg | rat | literature (Polydimethylsiloxane) |

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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 | literature (Polydimethylsiloxane) |

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 | literature (Polydimethylsiloxane) |

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 | literature (Polydimethylsiloxane) OECD 406 |

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.

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Product details:

| Result/Effect (Examinations of developmental toxicity and teratogenicity) | Species/Test system | Source |
|--|--|--------------------------------------|
| NOAEL (developmental): >= 1000 mg/kg NOAEL (maternal): >= 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: >= 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.

11.1.11 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.

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

12. Ecological information

12.1 Toxicity

Assessment:

No expected damaging effects to aquatic organisms. According to current knowledge adverse effects on water purification plants are not expected.

Product details:

| Result/Effect | Species/Test system | Source |
|---|--|--------------------------------------|
| EC ₀ : > 0.0001 mg/l (measured) effect level > maximum achievable concentration | static (water-accommodated fraction) Daphnia magna (48 h) | literature (Polydimethylsiloxane) |
| IC ₅₀ (growth rate): > 100000 mg/l (nominal) | Marine alga (skeleonema costatum) (72 h) | literature (Polydimethylsiloxane) |
| NOEC (relevant parameters): > 10000 mg/kg | feeding study rainbow trout (Oncorhynchus mykiss) (28 d) | literature (Polydimethylsiloxane) |

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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

13. Disposal considerations**13.1 Product disposal****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.

13.2 Packaging disposal**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.

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 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.

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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 SDS contains all the information required by the CPR.

WHMIS Hazard Classes:

None.

DSL Status:

This material or its components are listed on the Canadian Domestic Substances List.

Non-DSL Chemicals:

This material does not contain any non-DSL chemicals.

Canadian Ingredient Disclosure List:

This material contains no listed components.

15.4 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): This product is listed in, or complies with, the substance inventory. |
| 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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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 product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS 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 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.

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.....

ASTM D92, DIN 51376, ISO 2592

ASTM D93, DIN 51758, ISO 2719

ASTM D3278, DIN 55680, ISO 3679

DIN 51755.....

Common name

Tagliabue (Tag) closed cup

Cleveland open cup

Pensky-Martens closed cup

Setaflash or Rapid closed cup

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)