

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

1. Product and company identification

1.1 Identification of the substance or preparation:

Commercial product name: ELASTOSIL® M 4514
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 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.

2.3 Other hazards

No data available.

3. Composition/information on ingredients

3.1 Chemical characterization (preparation)

Chemical characteristics
Polysiloxane with functional groups + auxiliary

3.2 Information on ingredients:

| Type | CAS No. | Substance | Content [wt. %] | | Note |
|------|------------|------------------|-----------------|-------|--------|
| | | | Lower | Upper | |
| INHA | 14808-60-7 | Quartz | >10.0 | <25.0 | C1, C2 |
| INHA | 13463-67-7 | Titanium dioxide | | <2.0 | C1 |

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.

Quartz: This component does not impact the product's hazard classification. Due to the product's physical properties, particulate inhalation exposure is not possible. Titanium dioxide: This component does not impact the product's hazard classification. Due to

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

the product's physical properties, particulate inhalation exposure is not possible.

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.

4.2 After inhalation

Material cannot be inhaled under normal conditions.

4.3 After contact with the skin

For skin contact, immediately wipe away excess material. 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

No special measures are required after swallowing.

4.6 Advice for the physician

Treat symptomatically.

5. Fire-fighting measures

5.1 Flammable properties:

| Property: | Value: | Method: |
|------------------------------------|-----------------|-------------|
| Flash point..... | 296 °C (564 °F) | (ISO 2592) |
| Boiling point / boiling range..... | not applicable | |
| Lower explosion limit (LEL)..... | not applicable | |
| Ignition temperature..... | 410 °C (770 °F) | (DIN 51794) |

5.2 Fire and explosion hazards:

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

5.3 Recommended extinguishing media:

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

5.4 Unsuitable extinguishing media:

water jet

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

Hazardous combustion products: carbon monoxide , carbon dioxide , silicon dioxide , formaldehyde , Various hydrocarbon fragments .

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:

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.

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

HAZWOPER PPE Level: D**6.2 Containment:**

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

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

Scoop up large quantities after dusting surfaces with sand or Fuller's earth to prevent sticking. Sweep or scrape up the spilled material and place in an appropriate chemical waste container. 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:**

Observe information in section 8.

Precautions against fire and explosion:

Observe the general rules for fire prevention.

7.2 Storage**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.

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

Use with adequate ventilation.

Local exhaust:

No special ventilation required.

8.2 Associate substances with specific control parameters such as limit values

none known

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 or chemical safety goggles.

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. When handling do not eat, drink, smoke or apply cosmetics. Follow standard industrial hygiene practices when using this material. Wash thoroughly after handling.

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

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

Physical state / form.....: paste
 Colour: white
 Odour: slight

9.2 Safety parameters

| Property: | Value: | Method: |
|-------------------------------------|--|-------------------|
| Melting point / melting range | not applicable | |
| Boiling point / boiling range | not applicable | |
| Flash point..... | 296 °C (564 °F) | (ISO 2592) |
| Ignition temperature | 410 °C (770 °F) | (DIN 51794) |
| Lower explosion limit (LEL) | not applicable | |
| Vapour pressure..... | not applicable | |
| Density | approx. 1.26 g/cm ³ at 23 °C (73 °F), at 1013 hPa | (-) |
| Water solubility / miscibility..... | virtually insoluble | |
| pH-Value | not applicable | |
| Viscosity (dynamic) | 35000 mPa.s at 23 °C (73 °F) | (DIN EN ISO 3219) |

9.3 Further information

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

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 : > 2000 mg/kg | rat | Conclusion by analogy |
| dermal | LD ₅₀ : > 2000 mg/kg | rat | Conclusion by analogy |

11.1.2 Skin corrosion/irritation

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

Product details:

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

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

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

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

| Route of exposure | Result/Effect | Species/Test system | Source |
|-------------------|-----------------|---------------------|-----------------------|
| dermal | not sensitizing | guinea-pig; Bühler | Conclusion by analogy |

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 | Conclusion by analogy OECD 471 |

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:**

Based on the physical-chemical properties of the product no aspiration hazard must be expected.

11.1.11 Further toxicological information

Quartz has been classified by IARC as carcinogen group 1 ("carcinogenic to humans") and by NTP as known to be a human carcinogen. Titanium dioxide has been classified by IARC as carcinogen group 2B ("possibly carcinogenic to humans"). 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

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

12.1 Toxicity**Assessment:**

Assessment based on ecotoxicological tests with similar products under consideration of the physical-chemical properties: For this product no effects on aquatic organisms, relevant for classification, are expected. According to current knowledge adverse effects on water purification plants are not expected.

12.2 Persistence and degradability**Assessment:**

Silicone content: biologically not degradable. Separation by sedimentation.

12.3 Bioaccumulative potential**Assessment:**

Polymer component: No adverse effects expected.

12.4 Mobility in soil**Assessment:**

Insoluble in water. No adverse effects expected.

12.5 Other adverse effects

none known

12.6 Additional information

Easily separable from water by filtration.

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 reportable amounts of any TSCA 12(b) listed chemicals.

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

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:**

| | |
|------------|------------------|
| 13463-67-7 | Titanium dioxide |
| 14808-60-7 | Quartz |

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:

| | |
|------------|------------------|
| 13463-67-7 | Titanium dioxide |
| 14808-60-7 | Quartz |

New Jersey Right-to-Know Hazardous Substance List:

| | |
|------------|------------------|
| 13463-67-7 | Titanium dioxide |
| 14808-60-7 | Quartz |

Pennsylvania Right-to-Know Hazardous Substance List:

| | |
|------------|------------------|
| 13463-67-7 | Titanium dioxide |
| 14808-60-7 | Quartz |

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.

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. |

Safety Data Sheet

Material: 60011025

ELASTOSIL® M 4514

Version: 2.0 (US)

Date of print: 11/07/2016

Date of last alteration: 07/25/2016

Taiwan (Republic of China)..... : **TCSI** (Taiwan Chemical Substance Inventory):
 This product is listed in, or complies with, the substance inventory. General note:
 Taiwan REACH 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 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 | ppm - Parts per Million |
| DOT - Department of Transportation | SARA - Superfund Amendments and Reauthorization Act |
| hPa - Hectopascals | STEL - Short Term Exposure Limit |
| mPa*s - Milli Pascal-Seconds | TSCA - Toxic Substances Control Act |
| OSHA - Occupational Safety and Health Administration | TWA - Time Weighted Average |
| PEL - Permissible Exposure Limit | 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)