

Safety Data Sheet

Material: 70702331

ELASTOSIL® A 4

Version: 2.1 (US)

Date of print: 10/25/2016

Date of last alteration: 06/22/2015

1. Product and company identification**1.1 Identification of the substance or preparation:**

Commercial product name: ELASTOSIL® A 4
Product group: CDV Silicone Rubber
Use of substance / preparation: Industrial.
 Sealants

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):**

Class	Category	Route of exposure
Flammable liquids	Category 3	
Skin corrosion/irritation	Category 2	
Serious eye damage / eye irritation	Category 2B	
Reproductive toxicity	Category 2 (impair fertility)	
Reproductive toxicity	Category 2 (developmental toxicity)	

2.2 Label elements**Labelling (GHS):**

Pictogram(s):



Signal Word: Warning

H-Code	Hazard Statements
H226	Flammable liquid and vapour.
H315+H320	Causes skin and eye irritation.
H361	Suspected of damaging fertility or the unborn child.

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P-Code	Precautionary Statements
P103	Read label before use.
P202	Do not handle until all safety precautions have been read and understood.
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P332+P313	If skin irritation occurs: Get medical advice/ attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P370+P378	In case of fire: use water spray, extinguishing powder, foam or carbon dioxide to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P402+P404	Store in a dry place. Store in a closed container.
P501	Dispose of contents/container to waste disposal.

2.3 Other hazards

Inhalation of aerosol spray may damage health.

3. Composition/information on ingredients**3.1 Chemical characterization (preparation)**

Chemical characteristics

Polydimethylsiloxane + auxiliary + Aminosilane

3.2 Information on ingredients:

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
INHA	37697-65-7	1-Methyl N,N,N'-tris(1-methylpropyl) silanetriamine	>6.0	<7.0	
VERU	108-88-3	Toluene		<=0.11	R
VERU	556-67-2	Octamethyl cyclotetrasiloxane		<=0.22	R

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 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 occurs or if breathing becomes difficult. 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

If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

4.3 After contact with the skin

If contact with skin, immediately flush skin with plenty of water for at least 15 min.

4.4 After contact with the eyes

If contact with eyes, immediately flush eyes with plenty of water for at least 15 min. Keep eyelids well open to rinse the whole eye surface and eyelids with water.

4.5 After swallowing

For ingestion, if conscious, give several glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. If unconscious place in stable sideways position.

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5. Fire-fighting measures**5.1 Flammable properties:**

Property:	Value:	Method:
Flash point.....	36 °C (96 °F)	(ASTM D93)
Sustained combustibility.....	> 75 °C (> 167 °F)	(ASTM D4206)
Boiling point / boiling range	no data available	
Lower explosion limit (LEL)	no data available	
Upper explosion limit (UEL).....	no data available	
Ignition temperature	no data available	

5.2 Fire and explosion hazards:

Hydrolyzes on contact with moisture releasing ignitable, corrosive vapors. This material will flash but does not sustain combustion.

5.3 Recommended extinguishing media:

carbon dioxide, dry chemical or foam-type extinguishing media .

5.4 Unsuitable extinguishing media:

water .

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

Hazardous combustion products: carbon dioxide , formaldehyde , carbon monoxide , silicon dioxide , nitrogen oxides .

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:**

Wear personal protection equipment (see section 8). Avoid contact with eyes and skin. Avoid inhaling mists and vapours. If material is released indicate risk of slipping.

HAZWOPER PPE Level: C

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). Retain contaminated water/extinguishing water.

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

Do not flush away with water. 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. Exhaust vapours.

6.4 Further information:

Eliminate all sources of ignition.

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

Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Ensure adequate ventilation. Avoid contact with acids. Spilled substance increases risk of slipping.

Precautions against fire and explosion:

Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

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

none known

Advice for storage of incompatible materials:

not applicable

Further information for storage:

Protect against moisture. Keep container tightly closed and store in a cool, well ventilated place.

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

General ventilation sufficient to provide 1 CFM per square foot of floor area or 6 room air exchanges per hour is recommended.

Local exhaust:

Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne contaminants at the point of use.

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.

Further information:Maximum concentration at workplace recommended by producer: octamethylcyclotetrasiloxane (D4, CAS no. 556-67-2) = 10 ppm (123 mg/m³).**8.3 Personal protection equipment (PPE)****Respiratory protection:**

Respiratory protection is not normally required. A NIOSH approved air purifying respirator equipped with universal multi-contaminant multi-gas/vapor cartridges is recommended if overexposure to chemical vapors could occur.

Hand protection:

butyl rubber protective gloves

Eye protection:

Safety glasses with side shields.

Other protective clothing or equipment:

Provide eye bath and safety shower. Additional protective clothing or equipment is not normally required.

8.4 General hygiene and protection measures:

Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Avoid breathing dust/vapor/mist/gas/aerosol.

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

Physical state / form: liquid - viscous
 Colour: red
 Odour: ammoniacal

9.2 Safety parameters

Property:	Value:	Method:
Melting point / melting range	no data available	
Boiling point / boiling range	no data available	
Flash point.....	36 °C (96 °F)	(ASTM D93)
Sustained combustibility.....	> 75 °C (> 167 °F)	(ASTM D4206)
Ignition temperature	no data available	
Lower explosion limit (LEL)	no data available	
Upper explosion limit (UEL).....	no data available	
Vapour pressure.....	< 1.333220 hPa	

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Density: 1.34 g/cm³
 Water solubility / miscibility.....: insoluble
 pH-Value: not applicable
 Viscosity (dynamic): no data available

9.3 Further information

Re 9.2 solubility in water: Hydrolytic decomposition occurs. Re 9.2 pH Value: Product displays basic reaction with water.

Percent Volatiles: 7 %
 VOC: 80 g/l
 Corrosive to Steel or Aluminum.....: Not corrosive to steel or aluminum.

10. Stability and reactivity**10.1 General information:**

Stable under normal conditions of use.

10.2 Conditions to avoid

Keep away from incompatible substances. Although this product is not expected to react with commonly used materials of construction and process equipment, it is advised that any rubber or plastic items such as hoses and gaskets be tested prior to large scale processing to ensure there is no degradation of performance or durability.

10.3 Materials to avoid

Strong acids. Oxidizing materials (oxygen, oxidizers, peroxides, etc.). This material hydrolyzes slowly on contact with water.

10.4 Hazardous decomposition products

sec-Butylamine is released upon contact with water. 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****Product details:**

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD ₅₀ : > 5000 mg/kg	rat	test report
dermal	LD ₅₀ : > 2000 mg/kg	rabbit	test report

11.1.2 Skin corrosion/irritation**Assessment:**

Irritation of the skin must be expected. Due to a strong adherence to the skin symptoms of skin corrosion cannot be excluded after removing the substance mechanically.

Product details:

Result/Effect	Species/Test system	Source
not corrosive	Corrositex	test report
Symptoms of skin corrosion were observed. Based on the adherent properties of the substance the relevance must be questioned.	rabbit; 4 h	test report

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

Result/Effect	Species/Test system	Source
mildly irritating	rabbit	test report

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11.1.4 Respiratory or skin sensitization

Assessment:

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

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:

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

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: In contact with dampness product separates a small quantity of sec.butylamine (13952-84-6) which is irritating to skin, mucous membranes and respiratory system.

12. Ecological information

12.1 Toxicity

Assessment:

According to past experience toxicity to fish is improbable. 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. Polydimethylsiloxanes are degradable to a certain extent in abiotic processes.

12.3 Bioaccumulative potential

Assessment:

Bioaccumulation is not expected to occur.

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12.4 Mobility in soil**Assessment:**

Generates no stable films on surface of water, is absorbed by floating particles. Separation by sedimentation.

12.5 Other adverse effects

none known

13. Disposal considerations**13.1 RCRA Waste Classification:**

D001 (Ignitable)

This classification applies only to the material as it was originally produced.

13.2 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.

13.3 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

Other Information: This material has been tested and does not sustain combustion.

14.2 Transport by sea IMDG-Code

Valuation: Not regulated for transport

Comment.....: Not regulated in Class 3 - IMDG 2.3.1.3 - Substance does not sustain combustion!

14.3 Air transport ICAO-TI/IATA-DGR

Valuation: Not regulated for transport

Comment.....: Not regulated in Class 3 - IATA 3.3.1.3 / ICAO 3.1.3 - Substance does not sustain combustion!

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:

Immediate (acute) health hazard. Fire hazard.

SARA 313 Chemicals:

This material does not contain any SARA 313 chemicals above de minimus levels.

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HAPS (Hazardous Air Pollutants):

CAS No.	Chemical	Upper limit wt. %
108-88-3	Toluene	

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:

108-88-3 Toluene

Massachusetts Substance List:

1309-37-1 Iron oxide

New Jersey Right-to-Know Hazardous Substance List:

1309-37-1 Iron oxide

Pennsylvania Right-to-Know Hazardous Substance List:

1309-37-1 Iron oxide

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:

D2A, D2B

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.

People's Republic of China	IECSC (Inventory of Existing Chemical Substances in China): 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.
Philippines	PICCS (Philippine Inventory of Chemicals and Chemical Substances): 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.
Australia	AICS (Australian Inventory of Chemical Substances): 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.

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.

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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)