

Safety Data Sheet

Material: 319394

GENIOSIL® VTME

Version 1.0 (US)

Print Date 08/18/2023

Date of last alteration: 12/02/2022

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

Trade name **GENIOSIL® VTME**
Product group: Intermediate
Use of the Substance/Mixture Industrial.
 rubber industry Adhesive / sealant

1.2 Company/undertaking identification:

Manufacturer/distributor: Wacker Chemicals (China) Co., Ltd.
 Bldg. 3, 1535 Hongmei Road
 Caohejing Hi-Tech Park
 Shanghai 200233
 China

Customer information: Wacker Chemical Corporation
 4950 S State Road
 Ann Arbor, MI 48108
 InfoLine:
 Tel (517) 264-8240
 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):**

Classification	H-Code
Specific target organ toxicity - repeated exposure, Category 2 (Bone marrow)	H373
Reproductive toxicity, Category 1B	H360F
Reproductive toxicity, Category 1B	H360D

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

Pictogram(s):



Signal word: Danger

H-Code	Hazard statements
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs (Bone marrow) through prolonged or repeated exposure.

P-Code	Precautionary statements
P201	Obtain special instructions before use.
P280	Wear protective gloves/ eye protection/ face protection.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P314	Get medical advice/ attention if you feel unwell.
P405	Store locked up.

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2.3 Other hazards

The product contains substances which are relevant for the assessment in chapter 12.5.

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.

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

CAS-No.	Chemical characterization
	organosilane

3.2 Information on ingredients:

Type	CAS-No.	Substance	Content [wt. %]		Note
			Lower	Upper	
INHA	1067-53-4	Tris(2-methoxyethoxy)vinylsilan	>=95.0		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. Specific chemical identities and/or exact percentage (concentration) of the composition may have been withheld as a trade secret.

The product contains the following substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57) in amounts \geq 0.1%:

Type	CAS-No.	Substance	Content [%]
INHA	1067-53-4	tris(2-methoxyethoxy)vinylsilane	>=75- <100

Type: INHA: ingredient, VERU: impurity

4. First-aid measures**4.1 General information:**

Get medical attention if irritation or other symptoms occur. Take a copy of the Safety Data Sheet when going for medical treatment.

4.2 If inhaled

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

4.3 In case of skin contact

After 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 In case of eye contact

If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min. Get medical attention if irritation occurs.

4.5 If swallowed

No special measures are required after swallowing.

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5. Fire-fighting measures

5.1 Flammable properties:

Property:	Value:	Method:
Flash point.....	113 °C (235 °F)	(literature)
Boiling point/boiling range	285 °C (545 °F) at 1013 hPa	
Lower explosion limit.....	exempt	
Upper explosion limit.....	exempt	
Ignition temperature	210 °C (410 °F)	(DIN 51794)
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 - Use Fine Spray or Fog. Dry chemical. Carbon dioxide. AFFF alcohol compatible foam.

5.4 Unsuitable extinguishing media:

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 , silicon dioxide , formaldehyde 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:

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. 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. 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.

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

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 Further information:

Exhaust vapours.

7. Handling and storage

7.1 General information:

Avoid exposure by technical measures or personal protective equipment.

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7.2 Handling**Precautions for safe handling:**

Ensure adequate ventilation. Must be syphoned off in situ. 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.

7.3 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. Store container in a well ventilated 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**Maximum airborne concentrations at the workplace:**

Substance	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: protective gloves .

Eye protection:

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: liquid
 Colour: colourless
 Odour: faint

9.2 Safety data**Property:**

Melting point.....: -130 °C (-202 °F) at 1013 hPa
 Boiling point/boiling range: 285 °C (545 °F) at 1013 hPa
 Flash point.....: 113 °C (235 °F)
 Ignition temperature: 210 °C (410 °F)

Method:

(Lit.)
 (literature)
 (DIN 51794)

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Lower explosion limit.....	: exempt	
Upper explosion limit.....	: exempt	
Vapour pressure.....	: < 0.1 hPa / 25 °C (77 °F)	(Lit.)
Density.....	: 1.03 g/cm ³ at 25 °C (77 °F)	(DIN 51757)
Water solubility.....	: 71.5 g/l at 20 °C (68 °F)	(Lit.)
pH.....	: Not applicable. Product displays neutral reaction with water.	
Partition coefficient: n-octanol/water.....	: no data available	
Viscosity, dynamic.....	: 2.3 mPa.s at 25 °C (77 °F)	(DIN 51562)
Viscosity, kinematic.....	: no data available	

9.3 Further information

No data available.

Odour Threshold..... : no data available

Thermal decomposition..... : > 80 °C (> 176 °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****Product details:**

Exposure routes	Result/Effect
Oral	LD50 > 2000 mg/kg Mortality has been observed at the given dose level. Species: Rat, Sex: male and female, Method: OECD 401, Source: test report
Oral	LD50 2346 mg/kg Species: Rat, Sex: male and female, Method: OECD 401, Source: test report
dermal	LD50 > 2000 mg/kg Species: Rat, Sex: male and female, Method: OECD 402, Source: test report

11.1.2 Skin corrosion/irritation**Product details:**No skin irritation
(Species: Rabbit, Method: OECD 404, Source: test report)**11.1.3 Serious eye damage/eye irritation****Product details:**No eye irritation
(Species: Rabbit, Method: OECD 405, Source: test report)

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

Exposure routes	Result
Skin contact	Does not cause skin sensitisation. (Species: Guinea pig, Test system: Buehler Test, Method: OECD 406, Source: test report)
Inhalation	No data available.

11.1.5 Germ cell mutagenicity

negative (with and without metabolic activation) (Test system: mutation assay (in vitro) / bacterial cells, Method: OECD 471, Source: test report)
negative (with and without metabolic activation) (Test system: mutation assay (in vitro) / mouse lymphoma cells, Method: OECD 476, Source: test report)
negative (with and without metabolic activation) (Test system: chromosome aberration assay (in vitro) / mammalian cells, Method: OECD 473, Source: test report)

11.1.6 Carcinogenicity**Assessment:**

No data known.

11.1.7 Reproductive toxicity**Assessment:**

The substance can probably impair the unborn child or fertility in humans.

Product details:

Reproductive Toxicity/Fertility
NOAEL: 25 mg/kg (Test system: screening test, Species: Rat, Strain: Sprague-Dawley, Sex: male and female, Application Route: Oral, Route of administration: gavage, Method: OECD 422, Source: test report)
Reproductive Toxicity/Development/Teratogenicity
NOAEL (developmental): 75 mg/kg NOAEL (maternal): 75 mg/kg (Test system: screening test, Species: Rat, Strain: Sprague-Dawley, Sex: female, Application Route: Oral, Route of administration: gavage, Method: OECD 422, Source: test report)

11.1.8 Specific target organ toxicity - single exposure**Assessment:**

No data known.

11.1.9 Specific target organ toxicity - repeated exposure**Assessment:**

May cause damage to organs through repeated or prolonged exposure.

Product details:

Result/Effect
NOAEL: 25 mg/kg LOAEL: 75 mg/kg (target organs: Blood, hematopoietic system, Bone marrow, lymphatic system, Test system: Subacute study, Species: Rat, Sex: male and female, Application Route: Oral, Route of administration: gavage, Frequency of Treatment: 7 d/w, Method: OECD 422, Source: test report)

11.1.10 Aspiration hazard**Assessment:**

No data known.

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11.1.11 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.

11.1.12 Further toxicological information

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 known or anticipated carcinogen by NTP. 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: None known.

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

No expected damaging effects to aquatic organisms.

Product details:

Result/Effect	Species/Test system	Source
LC50: > 100 mg/l (nominal)	semi-static test Danio rerio (zebra fish) (96 h)	test report OECD 203
EC50: 314 mg/l (nominal)	static test Daphnia magna (Water flea) (48 h)	test report OECD 202
ErC50: 611 mg/l (nominal)	static test Desmodesmus subspicatus (green algae) (72 h)	test report OECD 201
NOEC (Growth rate): 75 mg/l (nominal)	static test Desmodesmus subspicatus (green algae) (72 h)	test report OECD 201
EC10 (Respiration inhibition): > 2070 mg/l (nominal)	static test Pseudomonas putida (5 h)	test report No guideline available

12.2 Persistence and degradability**Assessment:**

Readily biodegradable.

Product details:**Biodegradation:**

Result	Test system/Method	Source
89 % / 28 d Readily biodegradable.	DOC - decrease	test report OECD 301A
89 % / 28 d Readily biodegradable. Rapid biological degradation of the organic hydrolysis product.	DOC - decrease	test report OECD 301A

Hydrolysis:

Result	Test system	Source
Half-life: 2 min	pH 4	literature OECD 111
Half-life: 62 min	pH 7	literature OECD 111
Half-life: 1 min	pH 9	literature OECD 111
Half-life: 1.6 min	pH 4; 25 °C	test report OECD 111
Half-life: 61.5 min	pH 7; 25 °C	test report OECD 111

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Half-life: 0.94 min

pH 9; 25 °C

test report
OECD 111**12.3 Bioaccumulative potential****Assessment:**

No adverse effects expected.

12.4 Mobility in soil**Assessment:**

No data known.

12.5 Results of PBT and vPvB assessment

The substance does not fulfill the PBT criteria. The substance does not fulfill the vPvB criteria.

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

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.

CERCLA Regulated Chemicals:

This material does not contain any CERCLA regulated chemicals.

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SARA 302 EHS Chemicals:

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:

Reproductive toxicity. Specific target organ toxicity (single or repeated exposure)

SARA 313 Chemicals:

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

HAPS (Hazardous Air Pollutants):

CAS-No.	Chemical	Upper limit wt. %
109-86-4	2-Methoxyethanol	<=0.0989

15.2 U.S. State regulations**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):**

This material does not contain any chemicals known to the State of California to cause cancer.

California Proposition 65 Reproductive Toxins:

109-86-4 2-Methoxyethanol

Massachusetts Substance List:

This material contains no listed components.

Pennsylvania Right-to-Know Hazardous Substance List:

This material contains no listed components.

15.3 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.
- 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.

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 information relates to the specific material designated and may not be valid for such material used in combination

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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.

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

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)