

Material: 315192 GENIOSIL® NOTE

Version 1.6 (GHS\_INT) Print Date 12.10.2023 Date of last alteration: 08.11.2022

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

1.1 Product identifier

 Commercial product name:
 GENIOSIL® NOTE

 Product identifier:
 Triethoxyoctylsilane

CAS No.: 2943-75-1

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

Use of substance / preparation:

Industrial. Commercial. Construction products

1.3 Details of the supplier of the safety data sheet

Manufacturer/distributor: Wacker Chemie AG
Street/POB-No.: Hanns-Seidel-Platz 4
State/postal code/city: D 81737 München
Telephone: +49 89 6279-0

Information about the Safety Data Sheet: Telephone +49 8677 83-4888

eMail WLCP-MSDS@wacker.com

1.4 Emergency telephone number

Emergency Information: Europe +44 1235 239670
Emergency Information: Africa and the Middle East +44 1235 239671
Emergency Information: Caribbean, Central America and South +1 646 844 7309

America except Chile and Colombia

Emergency Information:Pakistan+65 3158 1329Emergency Information:Bangladesh+65 3158 1200Emergency Information:East Asia and Southeast Asia except Sri+65 3158 1074

Lanka, Bangladesh and Pakistan

Emergency Information: Sri Lanka +65 3158 1195

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

Classification	H-Code
Skin corrosion/irritation, Category 2	H315

### 2.2 Label elements

Pictogram(s):



### Signal Word: Warning

H-Code	Hazard Statements	
H315	Causes skin irritation.	
P-Code	P-Code Precautionary Statements	
P280	Wear protective gloves/protective clothing/eye protection.	
P302 + P352		
P332 + P313 If skin irritation occurs: Get medical advice/ attention.		
Hazard ingredients (labelling):		
Triethoxyoctylsilane		

### 2.3 Other hazards

The product hydrolyses under formation of ethanol (CAS-Nr. 64-17-5). Ethanol is classified concerning both physical and health hazards. The hydrolysis rate and consequently the relevance for the hazard profile of the product is strongly dependent on the



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specific conditions.

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

CAS No.: 2943-75-1 Alkoxy silanes

### 3.1.2 Hazardous ingredients

Туре	CAS No.	Substance	Content %
INHA	2943-75-1	Triethoxyoctylsilane	<=100
VERU	64-17-5	Ethanol	<2

Type: INHA: ingredient, VERU: impurity

### 3.2 Mixtures

not applicable

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

### SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Take persons to a safe place. Observe self-protection for first aid. Seek medical advice in the event of contact with this substance.

### After contact with the eyes:

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice and clearly identify substance.

### After contact with the skin:

Remove contaminated or soaked clothing. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice and clearly identify substance.

#### After inhalation:

Keep the patient calm. Protect against loss of body heat. Seek medical advice and clearly identify substance.

### After swallowing:

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice and clearly identify substance.

#### 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.



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### 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. 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.

### 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.

### Further information:

Exhaust vapours. Eliminate all sources of ignition. Consider explosion protection. Observe notes under section 7.

### 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

### **General information:**

Avoid exposure by technical measures or personal protective equipment.

#### Precautions for safe handling:

Ensure adequate ventilation. Must be syphoned off in situ. Spilled substance increases risk of slipping. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Observe information in section 8. Keep away from incompatible substances in accordance with section 10.

### Precautions against fire and explosion:

Product may release ethanol. 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.

### 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.



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### Further information for storage:

Store in a dry and cool place. Protect against moisture. Store container in a well ventilated place.

### 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/m <sup>3</sup>	ppm	Dust fract.	Fibre/m <sup>3</sup>
Aerosol - inhalable fraction		10,0			

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 inhale gases/vapours/aerosols. Use with adequate ventilation. Avoid contact with eyes and skin. Preventive skin protection recommended. Remove contaminated, soaked clothing immediately. Clean work areas regularly. Provide emergency shower and eye-bath. 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

If inhalative exposure above the occupational exposure limit cannot be excluded, adequate respiratory protection equipment must be used. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136. Recommended Filter type: Gas filter type ABEK (certain inorganic, organic and acidic gases and vapors; ammonia/amines), according to acknowledged standards such as EN 14387

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136.

Recommended Filter type: Combined filter type ABEK-P2 (certain inorganic, organic and acidic gases and vapors; ammonia/amines; particles), according to acknowledged standards such as EN 14387

Observe the equipment manufacturer's information and wear time limits for respirators.

#### Eye protection

tight fitting protective goggles.

### Hand protection

Protective gloves are required at all times when handling the material, according to recognized standards such as EN374.

Recommended glove types: Protective gloves made of butyl rubber

thickness of the material: > 0,3 mm Breakthrough time: > 480 min

Recommended glove types: Protective gloves made of nitrile rubber

thickness of the material: > 0,4 mm Breakthrough time: 10 - 30 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.

### Skin protection

If handled uncovered: Chemical protective clothing, full-body liquid-tight protection if necessary. Please observe the instructions regarding permeability time which are provided by the supplier.



9.1

9.2

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### 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**

1	Information on basic physical and chemical prop	erties	
	Property:	Value:	Method:
	Appearance		
	Physical state	liquid	
	Colour	colourless	
	Odour		
	Odour:	almost odourless	
	Odour limit		
	Odour limit:	no data available	
	pH-Value		
	pH-Value:	Not applicable. Insoluble in water.	
	Melting point/freezing point		
	Melting point / melting range	< -50 °C at 1013 hPa	(OECD 102)
	Initial boiling point and boiling range		
	Boiling point / boiling range	239 °C at 1013 hPa	
	Flash point		
	Flash point		(ISO 3679)
	Sustained combustibility	105 °C	(ISO 9038)
	Evaporation rate	1.4	
	Evaporation rate	no data available	
	Upper/lower flammability or explosive limits	0.41/ 1.0/	(DIN EN 4000)
	Lower explosion limit (LEL)		(DIN EN 1839)
	Upper explosion limit (UEL)	not determined	
	Vapour pressure	0.4 hD- /00.00	(t:t:I)
	Vapour pressure	0,1 hPa / 20 °C	(not specified)
	Solubility(ies)	prosticelly incoluble	
	Water solubility / miscibility	practically insoluble	
	Relative gas/vapour density:	no data available	
	Relative Density	TIO data available	
	Relative Density	0.88 (20 °C)	(DIN 51757)
	Relative Delisity	(Water / 4 °C = 1,00)	(DIN 31737)
	Density:		(DIN 51757)
	Partition coefficient: n-octanol/water	0,00 g/cm (20 0)	(DIN 31737)
	Partition coefficient: n-octanol/water	no data available	
	Auto-ignition temperature	The data available	
	Ignition temperature	259 °C	(EN 14522)
	Decomposition temperature		(=::::===)
	Thermal decomposition	> 150 °C	
	Viscosity		
	Viscosity (dynamic)	2 mPa.s at 20 °C	(DIN 51562)
	Viscosity (kinematic)		
	Molecular mass		
	Molecular mass	276,5	
2	Other information		
	No data available.		

## **SECTION 10: Stability and reactivity**

### 10.1 - 10.3 Rea; 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.



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### 10.4 Conditions to avoid

Moisture, heat, open flames, and other sources of ignition.

#### 10.5 Incompatible materials

Reacts with water, basic substances and acids. The reaction takes place with the formation of ethanol.

### 10.6 Hazardous decomposition products

Ethanol by hydrolysis. 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 toxicological effects

### 11.1.1 Acute toxicity

### **Product details:**

Exposure routes	Result/Effect	
Oral	LD50 >= 5110 mg/kg	
	Species: Rat, Method: OECD 401, Source: test report	
dermal	LD50 6730 mg/kg	
	Species: Rabbit, Method: OECD 402, Source: test report	
by inhalation	LC50 > 0,25 mg/l; 4 h	
((vapour))	No mortality observed at this dose.	
	Species: Rat, Method: OECD 403, Source: test report	

#### 11.1.2 Skin corrosion/irritation

#### Product details:

irritating

(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)

### 11.1.4 Respiratory or skin sensitisation

### **Product details:**

Exposure routes	Result	
Skin contact	Does not cause skin sensitisation.	
	(Species: Guinea pig. Test system: Maximisation Test, Method: OECD 406, Source; test report)	

### 11.1.5 Germ cell mutagenicity

### Assessment:

According to our present state of knowledge not mutagenic.

negative

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

negative

(Test system: chromosome aberration assay (in vitro) / mammalian cells, Method: OECD 473, Source: test report)

negative

(Test system: mutation assay (in vitro) / mammalian cells, Method: OECD 476, Source: test report)

### 11.1.6 Carcinogenicity

### Assessment:

No data known.



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### 11.1.7 Reproductive toxicity

#### Assessment:

Based on the available data the criteria for classification as toxic to reproduction are not fulfilled.

### **Product details:**

Reproductive Toxicity/Fertility

NOAEL: 300 mg/kg

(Test system: screening test, Species: Rat, Application Route: Oral, Test substance: read-across substance, Method: OECD 422,

Source: test report)

Reproductive Toxicity/Development/Teratogenicity

NOAEL (developmental): 300 mg/kg NOAEL (maternal): 300 mg/kg

(Test system: screening test, Species: Rat, Application Route: Oral, Route of administration: gavage, Method: OECD 422,

Source: test report)

NOAEL (developmental): >= 1000 mg/kg NOAEL (maternal): >= 1000 mg/kg

(Symptoms/Effect: Nothing abnormal detected., Test system: Developmental Toxicity Study, Species: Rat, Application Route:

Oral, Route of administration: gavage, Frequency of Treatment: day 6 - 20 of gestation, Test substance: read-across substance,

Method: OECD 414, 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:

Based on the available data the criteria for classification as toxic after repeated exposure are not fulfilled.

### **Product details:**

Result/Effect

NOAEL: 300 mg/kg LOAEL: 1000 mg/kg

(Symptoms/Effect: Effects on the urinary bladder., Species: RatApplication Route: Oral, Test period: 28 d, Source: test report)

NOAEC: >= 3 mg/l Exposure type: Nose only

(Test system: Subacute study, Species: RatApplication Route: by inhalation, Route of administration: (spray), Test period: 28 d, Frequency of Treatment: 5 d/w, hours/day: 6, Subsequent observation period: 14 d, Test substance: read-across substance,

Method: OECD 412, Source: test report)

### 11.1.10 Aspiration hazard

### Assessment:

No data known.

### 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

None known.

### SECTION 12: Ecological information

### 12.1 Toxicity



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#### **Product details:**

Result/Effect	Species/Test system	Source
LC50: > 0,055 mg/l (measured)	flow-through test	test report
The effect level is greater than the maximum achievable	Oncorhynchus mykiss (rainbow trout) (96 h)	OECD 203
concentration.		
EC50: > 0,049 mg/l (measured)	flow-through test	test report
The effect level is greater than the maximum achievable	Daphnia magna (Water flea) (48 h)	OECD 202
concentration.		
IC50 (Growth rate): > 0,13 mg/l (nominal)	static test	test report
The effect level is greater than the maximum achievable	Pseudokirchneriella subcapitata (green algae) (72	OECD 201
concentration.	h)	
NOEC (Respiration inhibition): >= 1000 mg/l (nominal)	activated sludge (3 h)	test report

### 12.2 Persistence and degradability

### Assessment:

Contact with water liberates ethanol and silanol- and/or siloxanol-compounds. Ethanol is readily biodegradable. Silanol- and/or siloxanol-compounds: Biologically not degradable.

### **Product details:**

**Biodegradation:** 

Result	Test system/Method	Source
31,5 % / 28 d	biological oxygen demand (BOD)	test report
Not readily biodegradable.		OECD 301D

### **Hydrolysis:**

Result	Test system	Source
Half-life: 30 h	pH 7; 20 - 25 °C	calc. value

### 12.3 Bioaccumulative potential

### Assessment:

No data known.

### 12.4 Mobility in soil

### **Assessment:**

No data known.

### 12.5 Results of PBT and 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.



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### 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.

### SECTION 14: Transport information

### 14.1 - 14.4 UN number; UN proper shipping name; Transport hazard class(es); Packing group

Road ADR:

Valuation ...... Not regulated for transport

Railway RID:

Valuation ...... Not regulated for transport

**Transport by sea IMDG-Code:** 

Valuation ...... Not regulated for transport

Air transport ICAO-TI/IATA-DGR:

Valuation ...... Not regulated for transport

14.5 **Environmental hazards** 

Hazardous to the environment: no

14.6 Special precautions for user

Relevant information in other sections has to be considered.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk transport in tankers is not intended.

### SECTION 15: Regulatory information

### 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.

#### 15.2 **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.

This product is listed in, or complies with, the substance inventory. 

This product is listed in, or complies with, the substance inventory.

This product is listed in, or complies with, the substance inventory. 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.

TCSI (Taiwan Chemical Substance Inventory): Taiwan .....::

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.



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European Economic Area (EEA).....: REACH (Regulation (EC) No 1907/2006):

REACH registration number: 01-2119972313-39-0003

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.

### 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.

Classification	Rationale:
Skin corrosion/irritation, Category 2	On basis of test data.

- End of Safety Data Sheet -