

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 29 Jan 2021

Print date: 29 Oct 2021

Version: 2.5

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

1.1. Product identifier

Trade name/designation:

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

Use of the substance/mixture:

Impregnation agent

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

OBTEGO AG

Landshuter Straße 36

84051 Essenbach/Altheim

Germany

Telephone: +49 8703/93844-0

Telefax: +49 8703/93844-29

E-mail: sdb@obtego.com

Website: www.obtego.com

E-mail (competent person): sdb@obtego.com

1.4. Emergency telephone number

24h: +49(0)89-19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids (<i>Flam. Liq. 2</i>)	H225: Highly flammable liquid and vapour.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS02
Flame



GHS07
Exclamation mark

Signal word: Danger

Hazard components for labelling:

toluene; methanol; trimethoxy(methyl)silane

Hazard statements for physical hazards

H225 Highly flammable liquid and vapour.

hazard statements for health hazards

H319 Causes serious eye irritation.

Supplemental hazard information: -

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Precautionary statements Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 64-17-5 EC No.: 200-578-6 REACH No.: 01-2119457610-43-XXXX	ethanol Eye Irrit. 2 (H319), Flam. Liq. 2 (H225)   Danger	< 70 weight-%
CAS No.: 1185-55-3 EC No.: 214-685-0	trimethoxy(methyl)silane Acute Tox. 4 (H302), Flam. Liq. 2 (H225)   Danger	< 10 weight-%
CAS No.: 2943-75-1 EC No.: 220-941-2 REACH No.: 01-2119972313-39-0001	triethoxyoctylsilane Skin Irrit. 2 (H315)  Warning	< 5 weight-%
CAS No.: 67-56-1 EC No.: 200-659-6	methanol Acute Tox. 3 (H331, H311, H301), Flam. Liq. 2 (H225), STOT SE 1 (H370**)    Danger Specific concentration limit (SCL) STOT SE 1; H370: C ≥ 10% STOT SE 2; H371: 3% ≤ C < 10%	< 1 weight-%
CAS No.: 108-88-3 EC No.: 203-625-9	toluene Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), Repr. 2 (H361d***), STOT RE 2 (H373**), STOT SE 3 (H336), Skin Irrit. 2 (H315)    Danger	< 1 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

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After eye contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion:

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Rinse mouth. Let water be drunk in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed

Serious eye damage/eye irritation

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam,,, Water spray

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Pyrolysis products, toxic

Hazardous combustion products:

Nitrogen oxides (NOx), Carbon dioxide (CO₂), Carbon monoxide In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety. Special danger of slipping by leaking/spilling product. Provide adequate ventilation. Remove all sources of ignition.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Wipe up with absorbent material (eg. cloth, fleece). The contaminated area should be cleaned up immediately with: Solvent

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Other information:

Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7. Personal protection equipment: see section 8. Disposal: see section 13.

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Provide adequate ventilation. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Fire prevent measures:

Usual measures for fire prevention.

Measures to prevent aerosol and dust generation:

Use only in well-ventilated areas.

Environmental precautions:

Do not allow to enter into surface water or drains.

Advices on general occupational hygiene

Wash hands before breaks and after work. Use protective skin cream before handling the product. When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:

Keep/Store only in original container.

Requirements for storage rooms and vessels:

The floor should be leak tight, jointless and not absorbent.

Hints on storage assembly:

Do not store together with: Food and feedingstuffs, Oxidising agent

Storage class (TRGS 510, Germany): 3 - Flammable liquids

Further information on storage conditions:

Protect containers against damage. Keep away from heat.

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE)	ethanol CAS No.: 64-17-5 EC No.: 200-578-6	① 200 ppm (380 mg/m ³) ② 800 ppm (1,520 mg/m ³)
IOELV (EU)	methanol CAS No.: 67-56-1 EC No.: 200-659-6	① 200 ppm (260 mg/m ³) ⑤ (may be absorbed through the skin)
TRGS 900 (DE)	methanol CAS No.: 67-56-1 EC No.: 200-659-6	① 100 ppm (130 mg/m ³) ② 200 ppm (260 mg/m ³) ⑤ (kann über die Haut aufgenommen werden)
TRGS 900 (DE)	toluene CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (190 mg/m ³) ② 100 ppm (380 mg/m ³) ⑤ (kann über die Haut aufgenommen werden)
IOELV (EU)	toluene CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m ³) ② 100 ppm (384 mg/m ³) ⑤ (may be absorbed through the skin)

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① parameter ② Test material ③ Time of sampling ④ Remark
TRGS 903 (DE)	methanol CAS No.: 67-56-1 EC No.: 200-659-6	15 mg/L	① Methanol ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende
TRGS 903 (DE)	toluene CAS No.: 108-88-3 EC No.: 203-625-9	1.5 mg/L	① o-Kresol ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende
TRGS 903 (DE)	toluene CAS No.: 108-88-3 EC No.: 203-625-9	0.6 mg/L	① Toluol ② Blut ③ unmittelbar nach Exposition
TRGS 903 (DE)	toluene CAS No.: 108-88-3 EC No.: 203-625-9	75 µg/L	① Toluol ② Urin ③ Expositionsende bzw. Schichtende

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8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	114 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	1,900 mg/m ³	① DNEL worker ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m ³	① DNEL Consumer ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	343 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	206 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	87 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.96 mg/l	① PNEC aquatic, freshwater
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.79 mg/l	① PNEC aquatic, marine water
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	580 mg/l	① PNEC sewage treatment plant
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	3.6 mg/kg	① PNEC sediment, freshwater
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	2.9 mg/kg	① PNEC sediment, marine water
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	2.75 mg/l	① PNEC air
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.72 mg/kg	① PNEC secondary poisoning
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.63 mg/kg	① PNEC soil, freshwater

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures to prevent exposure

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection EN 166

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Skin protection:

Tested protective gloves must be worn EN ISO 374. Suitable material: Butyl caoutchouc (butyl rubber). Breakthrough time: > 480 min. In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: aerosol or mist formation. Filtering device (full mask or mouthpiece) with filter: A-P2

Other protection measures:

Do not breathe vapour/aerosol. Avoid contact with eyes and skin. Wear suitable protective clothing and gloves.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: colourless

Odour: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not determined</i>			
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	≈ 75 °C			
Decomposition temperature	<i>not determined</i>			
Flash point	12 °C		DIN EN ISO 2719	
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	≈ 425 °C			
Upper/lower flammability or explosive limits	3.5 - 15 Vol-%			Ethanol
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	0.88 g/cm ³	20 °C	DIN EN ISO 2811-2	
Relative density	<i>not determined</i>			
Bulk density	<i>not determined</i>			
Water solubility	partially miscible			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions. Highly flammable liquid and vapour.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

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10.3. Possibility of hazardous reactions

Exothermic reaction with: Oxidising agent. In use, may form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid

See section 7. No additional measures necessary.

10.5. Incompatible materials

Materials to avoid: Oxidising agent

10.6. Hazardous decomposition products

Gases/vapours, flammable; Formation of: Methanol

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Substance name	Toxicological information
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	LD₅₀ oral: >2,000 mg/kg (Rat) OECD 401 LC₅₀ Acute inhalation toxicity (vapour): >20 mg/l (Rat) LD₅₀ dermal: >2,000 mg/kg (Rabbit) OECD 402
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	LD₅₀ oral: >11,685 mg/kg (Rat) LD₅₀ dermal: >9,500 mg/kg (Rat) LC₅₀ Acute inhalation toxicity (vapour): >42.1 mg/l (Rat)
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	LD₅₀ oral: >5,110 mg/kg (Rat) OECD 401 LC₅₀ Acute inhalation toxicity (vapour): 22 mg/l 4 h (Rat) OECD 403 LD₅₀ dermal: 6,730 mg/kg (Rabbit) OECD 402
butanone CAS No.: 78-93-3 EC No.: 201-159-0	LD₅₀ oral: 2,054 mg/kg (rat) OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
methanol CAS No.: 67-56-1 EC No.: 200-659-6	LD₅₀ oral: >1,187 - 2,769 mg/kg (rat) LC₅₀ Acute inhalation toxicity (vapour): 82.1 mg/l 6 h (rat)
toluene CAS No.: 108-88-3 EC No.: 203-625-9	LD₅₀ oral: 636 mg/kg (Rat) LD₅₀ dermal: 12,200 mg/kg (Rabbit) LC₅₀ Acute inhalation toxicity (vapour): 25.7 mg/l 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity)

Acute oral toxicity:

not determined

Acute dermal toxicity:

not determined

Acute inhalation toxicity:

not determined

Skin corrosion/irritation:

not determined

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Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

not determined

Germ cell mutagenicity:

not determined

Carcinogenicity:

not determined

Reproductive toxicity:

not determined

STOT-single exposure:

not determined

STOT-repeated exposure:

not determined

Aspiration hazard:

not determined

Additional information:

The evaluation was carried out according to the calculation method. Toxicological data are not available.

No data available

11.2. Information on other hazards

No data available

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SECTION 12: Ecological information

12.1. Toxicity

Substance name	Toxicological information
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	LC₅₀ : 15,300 mg/l 4 d (fish, Pimephales promelas (fath ead minnow)) LC₅₀ : 11,200 mg/l (fish, Salmo gairdneri) EC₅₀ : 858 mg/l (Artemia salina) OECD 202 EC₅₀ : >10,000 mg/l 2 d (Daphnia magna (Big water flea)) LC₅₀ : 5,012 mg/l 2 d (Ceriodaphnia dubia) EC₅₀ : 275 mg/l 3 d (Algae/water plant, Chlorella vulgaris) OECD 201 EC₅₀ : 5,800 mg/l (Paramecium caudatum) LC₅₀ : 14,200 mg/l 4 d (fish, Pimephales promelas) US EPA method E03-05 LC₅₀ : 5,012 mg/l 2 d (crustaceans, Ceriodaphnia dubia) ASTM E729-80 EC₅₀ : 275 mg/l 3 d (Algae/water plant, Chlorella vulgaris) OECD Guideline 201 (Alga, Growth Inhibition Test) EC₅₀ : 675 mg/l 4 d (Algae/water plant, Chlorella vulgaris) OECD Guideline 201 (Alga, Growth Inhibition Test) EC₅₀ : 12,900 mg/l 4 d (fish, Pimephales promelas) US EPA method E03-05 NOEC : 2 mg/l 10 d (crustaceans, Ceriodaphnia dubia)
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	LC₅₀ : >110 mg/l 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri)) OECD Guideline 203 (Fish, Acute Toxicity Test) EC₅₀ : >3.6 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test) EC₅₀ : >122 mg/l 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) NOEC : ≥3.6 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test) NOEC : ≥110 mg/l 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri)) OECD Guideline 203 (Fish, Acute Toxicity Test) NOEC : ≥122 mg/l 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) NOEC : ≥10 mg/l 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	EC₅₀ : >1,000 mg/l (Activated sludge) OECD 209 NOEC : ≥1,000 mg/l (Activated sludge) OECD 209 LC₅₀ : >0.055 mg/l 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri)) OECD Guideline 203 (Fish, Acute Toxicity Test) EC₅₀ : >0.13 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test) EC₅₀ : >0.049 mg/l 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

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Substance name	Toxicological information
methanol CAS No.: 67-56-1 EC No.: 200-659-6	LC₅₀ : 15,400 mg/l 4 d (fish, <i>Lepomis macrochirus</i>) EPA-660/3-75-009, 1975 EC₅₀ : 22,000 mg/l 4 d (Algae/water plant, <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)) EC₅₀ : 12,700 mg/l 4 d (fish, <i>Lepomis macrochirus</i>) EPA-660/3-75-009, 1975 EC₅₀ : 18,260 mg/l 4 d (crustaceans, <i>Daphnia magna</i>) OECD Guideline 202 (<i>Daphnia</i> sp. Acute Immobilisation Test)

12.2. Persistence and degradability

Substance name	Biodegradation	Remark
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	Yes, rapidly	
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	Yes, slowly	
methanol CAS No.: 67-56-1 EC No.: 200-659-6	Yes, rapidly	

12.3. Bioaccumulative potential

Substance name	Log K _{ow}	Bioconcentration factor (BCF)
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	-0.3	0.66
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	2.4	
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	6.41	1,980 Species: <i>Cyprinus carpio</i>
methanol CAS No.: 67-56-1 EC No.: 200-659-6	-0.77	< 10 Species: <i>Leuciscus idus melanotus</i>

Accumulation / Evaluation:

No indication of bioaccumulation potential.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Substance name	Results of PBT and vPvB assessment
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	—
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	—
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
methanol CAS No.: 67-56-1 EC No.: 200-659-6	—

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

The evaluation was carried out according to the calculation method. Toxicological data are not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 01 11 *	Waste paint and varnish containing organic solvents or other dangerous substances
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*: Evidence for disposal must be provided.

Waste code packaging:

15 01 10 *	packaging containing residues of or contaminated by dangerous substances
------------	--

*: Evidence for disposal must be provided.

Waste treatment options





Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 1170	UN 1170	UN 1170	UN 1170
14.2. UN proper shipping name			
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3. Transport hazard class(es)			
 3	 3	 3	 3
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
No	No	No	No

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.6. Special precautions for user			
Special provisions: 144 601 Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 Hazard identification on number (Kemler No.): 33 Classification code: F1 tunnel restriction code: (D/E) Remark:	Special provisions: 144 601 Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 Classification code: F1 Remark:	Special provisions: 144 Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 EmS-No.: F-E, S-D Remark:	Special provisions: A3 A58 A180 Limited quantity (LQ): Y341 Excepted Quantities (EQ): E2 Remark:

14.7. Maritime transport in bulk according to IMO instruments

not determined

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

Other regulations (EU):

2008/98/EC, 2001/118/EC, 1999/13/EC, 2004/42/EC, (EC) No. 1907/2006, (EU) 2015/830, 75/324/EEC, 2008/47/EC, (EC) No. 1272/2008, 2008/68/EC, (EC) No. 648/2004

Information on Directive 1999/13 / EC on the limitation of emissions of volatile organic compounds (VOC-RL): VOC (in g / L): 612

VOC EU Limit (2004/42/EG) (cat. IIA/h): 750 g/L, VOC-value 534

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Störfallverordnung

Remark:

Yes.

Betriebssicherheitsverordnung (BetrSichV)

leichtentzündlich

Technische Anleitung Luft (TA-Luft)

Ziffer 1:

5.2.5 Organische Stoffe

Water hazard class

WGK:

1 - schwach wassergefährdend

Description:

Classification according to VwVwS, Annex 3.

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Technische Regeln für Gefahrstoffe

TRGS 200, TRGS 401, TRGS 510, TRGS 720, TRGS 721, TRGS 722, TRGS 800, RGS 900, TRGS 905

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

Berufsgenossenschaftliche Informationen (DGUV-Informationen): BGI 595, BGI 564, BGI 621

Other regulations, restrictions and prohibition regulations

Gefahrstoffverordnung (GefStoffV), Wasserhaushaltsgesetz (WHG)

15.2. Chemical Safety Assessment

not applicable

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

Substance name	Type	source of supply
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	LC ₅₀ ; EC ₅₀ ; NOEC	Source: European Chemicals Agency, http://echa.europa.eu/
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	LC ₅₀ ; EC ₅₀ ; NOEC	Source: European Chemicals Agency, http://echa.europa.eu/
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	LC ₅₀ ; EC ₅₀ ; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/
butanone CAS No.: 78-93-3 EC No.: 201-159-0	LD ₅₀ oral	Source: European Chemicals Agency, http://echa.europa.eu/
methanol CAS No.: 67-56-1 EC No.: 200-659-6	LD ₅₀ oral; LC ₅₀ Acute inhalation toxicity (vapour); LC ₅₀ ; EC ₅₀	Source: European Chemicals Agency, http://echa.europa.eu/
toluene CAS No.: 108-88-3 EC No.: 203-625-9	LC ₅₀ Acute inhalation toxicity (vapour)	Source: European Chemicals Agency, http://echa.europa.eu/

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids (<i>Flam. Liq. 2</i>)	H225: Highly flammable liquid and vapour.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child. (...)

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Hazard statements	
H370	Causes damage to organs. (...)
H371	May cause damage to organs. (...)
H373	May cause damage to organs through prolonged or repeated exposure. (...)

16.6. Training advice

No data available

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.