OBTEGO R-400

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

1.1. Product identifier
Trade name/designation:

OBTEGO R-400

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 *(Flam. Liq. 2)*	H225: Highly flammable liquid and vapour.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	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 statements for physical hazards	
H225	Highly flammable liquid and vapour.

Hazard statements for health hazards	
H319	Causes serious eye irritation.

Supplemental hazard information: none

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.

Precautionary statements Prevention	
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.

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	50 – ≤ 70 weight-%
CAS No.: 1185-55-3 EC No.: 214-685-0	**trimethoxy(methyl)silane** Acute Tox. 4 (H302), Flam. Liq. 2 (H225) Danger	5 – ≤ 10 weight-%
CAS No.: 2943-75-1 EC No.: 220-941-2 REACH No.: 01-2119972313-39-0001	**triethoxyoctylsilane** Skin Irrit. 2 (H315) Warning	2 – ≤ 5 weight-%
CAS No.: 108-88-3 EC No.: 203-625-9 Index No.: 601-021-00-3	**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	0 – ≤ 1 weight-%
CAS No.: 67-56-1 EC No.: 200-659-6 Index No.: 603-001-00-X	**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%	0 – ≤ 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:

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

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. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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. Get medical advice/attention if you feel unwell. Let 1 glass of water be drunken in little sips (dilution effect).

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 Skin corrosion/irritation Allergic reactions

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

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, smoke, sniff. Avoid contact with skin, eyes and clothes.

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.

Industrial sector specific solutions:
SMP-based coating materials

GISCODE:
RSP25

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) from 29 Mar 2019	**ethanol** CAS No.: 64-17-5 EC No.: 200-578-6	① 200 ppm (380 mg/m³) ② 800 ppm (1,520 mg/m³) ⑤ DFG, Y
TRGS 900 (DE) from 2 Jul 2021	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (190 mg/m³) ② 100 ppm (380 mg/m³) ⑤ (kann über die Haut aufgenommen werden) DFG, EU, H, Y
IOELV (EU)	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	① 50 ppm (192 mg/m³) ② 100 ppm (384 mg/m³) ⑤ (may be absorbed through the skin)
IOELV (EU)	**methanol** CAS No.: 67-56-1 EC No.: 200-659-6	① 200 ppm (260 mg/m³) ⑤ (may be absorbed through the skin)
TRGS 900 (DE) from 13 Mar 2020	**methanol** CAS No.: 67-56-1 EC No.: 200-659-6	① 100 ppm (130 mg/m³) ② 200 ppm (260 mg/m³) ⑤ (kann über die Haut aufgenommen werden) DFG, EU, H, Y

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) from 10 Oct 2024	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	1.5 mg/L	① o-Kresol ② Urin ③ bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten
TRGS 903 (DE) from 10 Oct 2024	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	600 µg/L	① Toluol ② Blut ③ unmittelbar nach Exposition
TRGS 903 (DE) from 28 Mar 2019	**toluene** CAS No.: 108-88-3 EC No.: 203-625-9	75 µg/L	① Toluol ② Urin ③ Expositionsende bzw. Schichtende
TRGS 903 (DE) from 10 Oct 2024	**methanol** CAS No.: 67-56-1 EC No.: 200-659-6	15 mg/L	① Methanol ② Urin ③ Expositionsende bzw. Schichtende

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/m³	① DNEL worker ② Long-term – inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	114 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	1,900 mg/m³	① DNEL worker ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m³	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
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	0.38 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	0.26 mg/kg bw/day	① DNEL worker 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
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	1.3 mg/L	① PNEC aquatic, freshwater

Substance name	PNEC Value	① PNEC type
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	0.19 mg/kg bw/day	① PNEC sediment, freshwater
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	0.48 mg/kg bw/day	① PNEC sediment, marine water
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	4.8 mg/kg bw/day	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

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. EN 136 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
Form: Liquid
Colour: colourless
Odour: not determined
flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*No data available*		
Melting point	*No data available*		
Freezing point	*No data available*		
Initial boiling point and boiling range	≈ 75 °C		
Flash point	12 °C		① DIN EN ISO 2719
Evaporation rate	*No data available*		
Auto-ignition temperature	≈ 425 °C		
Upper/lower flammability or explosive limits	*No data available*		
Vapour pressure	*No data available*		
Vapour density	*No data available*		
Density	≈ 0.88 g/cm³	20 °C	① DIN EN ISO 2811-2
Bulk density	*not applicable*		

Parameter	Value	at °C	① Method ② Remark
Water solubility	*No data available*		
Dynamic viscosity	*No data available*		
Kinematic viscosity	*No data available*	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. Highly flammable liquid and vapour.

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

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

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
LD_{50} oral: >2,000 mg/kg (Rat) OECD 401
LD_{50} dermal: >2,000 mg/kg (Rabbit) OECD 402
LC_{50} Acute inhalation toxicity (vapour): >20 mg/L (Rat)
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0
LD_{50} oral: ≈11,685 mg/kg (Rat)
LD_{50} dermal: >9,500 mg/kg (Rabbit) OECD 402
LC_{50} Acute inhalation toxicity (dust/mist): >42.1 mg/L 6 h (Rat) OECD 403
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
LD_{50} oral: >5,110 mg/kg (Rat) OECD 401
LD_{50} dermal: 6,730 mg/kg (Rabbit) OECD 402
LC_{50} Acute inhalation toxicity (vapour): 22 mg/L 4 h (Rat) OECD 403
toluene CAS No.: 108-88-3 EC No.: 203-625-9
LD_{50} oral: 636 mg/kg (Rat)
LD_{50} dermal: 12,200 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (vapour): 25.7 mg/L 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity)
methanol CAS No.: 67-56-1 EC No.: 200-659-6
LD_{50} oral: >1,187 – 2,769 mg/kg (rat)
LC_{50} Acute inhalation toxicity (vapour): 82.1 mg/L 6 h (rat)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
Causes serious eye irritation.

Respiratory or skin sensitisation:
May cause an allergic skin reaction.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Based on available data, the classification criteria are not met.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

12.1. Toxicity

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
LC_{50}: 15,300 mg/L 4 d (fish, Pimephales promelas (fathead minnow))
LC_{50}: 11,200 mg/L (fish, Salmo gairdneri)
LC_{50}: 5,012 mg/L 2 d (Ceriodaphnia dubia)
LC_{50}: >100 mg/L 4 d (fish, Pimephales promelas)
LC_{50}: 3.63 mg/L 12 d (crustaceans, Palaemonetes pugio)
EC_{50}: 858 mg/L (Artemia salina) OECD 202
EC_{50}: >10,000 mg/L 2 d (Daphnia magna (Big water flea))
EC_{50}: 275 mg/L 3 d (Algae/water plant, Chlorella vulgaris) OECD 201
EC_{50}: 5,800 mg/L (Paramaecium caudatum)
EC_{50}: 275 mg/L 3 d (Algae/water plant, Chlorella vulgaris) OECD Guideline 201 (Alga, Growth Inhibition Test)
EC_{50}: 9,164 mg/L 200 h (fish, Oryzias latipes)
EC_{50}: 695 mg/L 1 d (crustaceans, Artemia salina)
NOEC: 280 mg/L 7 d (Algae/water plant, Lemna gibba) EPA OTS 797.1160 (Aquatic Plant Toxicity Test using Lemna spp. Tiers I & II))
NOEC: >79 mg/L 100 d (fish, Oryzias latipes)
NOEC: 2 mg/L 10 d (crustaceans, Ceriodaphnia dubia)
LOEC: 3,950 mg/L 4 d (fish, Danio rerio (previous name: Brachydanio rerio)) OECD Guideline 236 (Fish embryo acute toxicity (FET) test)
LOEC: 19.8 mg/L 56 d (crustaceans, other aquatic mollusc:)

toluene CAS No.: 108-88-3 EC No.: 203-625-9
LC_{50}: 5.5 – 340 mg/L 4 d (fish)
LC_{50}: 15.5 – 310 mg/L 2 d (crustaceans)
EC_{50}: 6 – 19.6 mg/L 2 d (crustaceans)
EC_{50}: 12.5 mg/L 4 d (Algae/water plant)
LC_{50}: 5.5 mg/L 4 d (fish, Oncorhynchus kisutch)
LC_{50}: 3.78 mg/L 2 d (crustaceans, Ceriodaphnia dubia) US EPA 600/4-91-003
EC_{50}: 3.23 mg/L 7 d (crustaceans, Ceriodaphnia dubia) US EPA 600/4-91-003
NOEC: 0.74 mg/L 7 d (crustaceans, Ceriodaphnia dubia) US EPA 600/4-91-003
LOEC: 2.76 mg/L 7 d (crustaceans, Ceriodaphnia dubia) US EPA 600/4-91-003
methanol CAS No.: 67-56-1 EC No.: 200-659-6
LC_{50}: 15,400 mg/L 4 d (fish, Lepomis macrochirus) EPA-660/3-75-009, 1975
EC_{50}: 22,000 mg/L 4 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum))
EC_{50}: 12,700 mg/L 4 d (fish, Lepomis macrochirus) EPA-660/3-75-009, 1975
EC_{50}: 18,260 mg/L 4 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
Log K_{OW}: -0.3
Bioconcentration factor (BCF): 0.66
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
Log K_{OW}: 6.41
Bioconcentration factor (BCF): 1,980 Species: Cyprinus carpio
toluene CAS No.: 108-88-3 EC No.: 203-625-9
Log K_{OW}: 2.73
Bioconcentration factor (BCF): 90 Species: Leuciscus idus melanotus
methanol CAS No.: 67-56-1 EC No.: 200-659-6
Log K_{OW}: -0.77
Bioconcentration factor (BCF): < 10 Species: Leuciscus idus melanotus

Accumulation / Evaluation:
No indication of bioaccumulation potential.

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment

ethanol CAS No.: 64-17-5 EC No.: 200-578-6
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
3-aminopropyltriethoxysilane CAS No.: 919-30-2 EC No.: 213-048-4
Results of PBT and vPvB assessment: —
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

toluene	CAS No.: 108-88-3 EC No.: 203-625-9
Results of PBT and vPvB assessment: —	
methanol	CAS No.: 67-56-1 EC No.: 200-659-6
Results of PBT and vPvB assessment: —	
hydrochloric acid ... %	EC No.: 231-595-7
Results of PBT and vPvB assessment: —	

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

12.6. Endocrine disrupting properties
This substance does not have endocrine disrupting properties with respect to humans.

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

**: Evidence for disposal must be provided.*

Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable
HP 4	Irritant — skin irritation and eye damage

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	ETHANOL 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
14.6. Special precautions for user			
Special Provisions: 144 | 601	**Special Provisions:** 144 | 601	**Special Provisions:** 144	**Special Provisions:** A3 | A58 | A180

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
Limited quantity (LQ): 1 L **Excepted Quantities (EQ):** E2 **Hazard identification number (Kemler No.):** 33 **Classification code:** F1 **Tunnel restriction code:** (D/E)	**Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **Classification code:** F1	**Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **EmS-No.:** F-E, S-D	**Limited quantity (LQ):** Y341 **Excepted Quantities (EQ):** E2

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Synthetic polymer microparticles (as per entry 78 in Annex XVII of Regulation (EC) No. 1907/2006)

No synthetic microparticles are present.

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:

• P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Named dangerous substances:

• Methanol

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 Directive): VOC value: 612 g/L

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

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 juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Störfallverordnung (12. BImschV)

for substances contained in the product:

Hazard categories:

• P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Named dangerous substances:

• Methanol

Remark:

Yes.

Betriebssicherheitsverordnung (BetrSichV)

leichtentzündlich

Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

Ziffer 1:
5.2.5 Organische Stoffe

Water hazard class

WGK:
2 - obviously hazardous to water

Description:
Classification according to VwVwS, Annex 3.

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
No data available

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
toluene CAS No.: 108-88-3 EC No.: 203-625-9	LC_{50} Acute inhalation toxicity (vapour); LC_{50}; EC_{50}; NOEC; LOEC	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/
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	LC_{50}; EC_{50}; NOEC; LOEC	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]

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

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

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.

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.