

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 1/14

OBTEGO R-405

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

1.1. Product identifier

Trade name/designation:

OBTEGO R-405

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

Email: sdb@obtego.com

Website: www.obtego.com

Email (competent person): sdb@obtego.com

1.4. Emergency telephone number

Giftnotruf, München, 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]

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

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

Hazard statements: none

Supplemental hazard information: none

Precautionary statements Prevention	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing and eye protection/face protection.

2.3. Other hazards

Adverse human health effects and symptoms:

The substance/mixture does not contain components that are endocrine disruptors according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

Adverse environmental effects:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 2/14

OBTEGO R-405

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.: 2943-75-1 EC No.: 220-941-2 REACH No.: 01-2119972313-39-0001	triethoxyoctylsilane Skin Irrit. 2 (H315)  Warning	0 - ≤ 2 weight-%
CAS No.: 1185-55-3 EC No.: 214-685-0	trimethoxy(methyl)silane Acute Tox. 4 (H302), Flam. Liq. 2 (H225)   Danger	0 - < 1.5 weight-%
CAS No.: 64-18-6 EC No.: 200-579-1 Index No.: 607-001-00-0	formic acid Acute Tox. 3 (H331), Acute Tox. 4 (H302), Eye Dam. 1 (H318), Flam. Liq. 3 (H226), Met. Corr. 1 (H290), Skin Corr. 1A (H314)    Danger EUH071 Specific concentration limit (SCL) Flam. Liq. 3; H226: C ≥ 85% Skin Corr. 1A; H314: C ≥ 90% Skin Corr. 1B; H314: 10% ≤ C < 90% Skin Irrit. 2; H315: 2% ≤ C < 10% Eye Dam. 1; H318: C ≥ 10% Eye Irrit. 2; H319: 2% ≤ C < 10% Acute Toxicity Estimate ATE (oral) 500 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, vapour) 7.4 mg/L	0 - < 1 weight-%
CAS No.: 64-19-7 EC No.: 200-580-7 Index No.: 607-002-00-6	acetic acid Flam. Liq. 3 (H226), Skin Corr. 1A (H314)   Danger Specific concentration limit (SCL) Skin Corr. 1A; H314: C ≥ 90% Skin Corr. 1B; H314: 25% ≤ C < 90% Skin Irrit. 2; H315: 10% ≤ C < 25% Eye Dam. 1; H318: C ≥ 25% Eye Irrit. 2; H319: 10% ≤ C < 25% Acute Toxicity Estimate ATE (oral) 3,310 mg/kg ATE (dermal) 1,130 mg/kg ATE (inhalation, vapour) > 8.5 - < 9.9 mg/L	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 skin contact:

IF ON SKIN: Wash with plenty of water and soap.

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. If eye irritation persists: Call a physician immediately.

Following ingestion:

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

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 3/14

OBTEGO R-405

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

No data available

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:

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

Hazardous combustion products:

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

Dispose of waste according to applicable legislation. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

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

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). Wash with plenty of water. Water (with cleaning agent)

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.

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 4/14

OBTEGO R-405

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).

Fire prevent measures:

Usual measures for fire prevention. No special measures are necessary.

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

Storage class (TRGS 510, Germany): 12 – non-combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Protect containers against damage. Keep away from heat.

7.3. Specific end use(s)

Industrial sector specific solutions:

SMP-based coating materials

GISCODE:

RSP20

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
IOELV (EU)	formic acid CAS No.: 64-18-6 EC No.: 200-579-1	① 5 ppm (9 mg/m ³)
TRGS 900 (DE)	formic acid CAS No.: 64-18-6 EC No.: 200-579-1	① 5 ppm (9.5 mg/m ³) ② 10 ppm (19 mg/m ³) ⑤ DFG, EU, Y
IOELV (EU) from 21 Feb 2017	acetic acid CAS No.: 64-19-7 EC No.: 200-580-7	① 10 ppm (25 mg/m ³) ② 20 ppm (50 mg/m ³)

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 5/14

OBTEGO R-405

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)	acetic acid CAS No.: 64-19-7 EC No.: 200-580-7	① 10 ppm (25 mg/m ³) ② 20 ppm (50 mg/m ³) ⑤ DFG, EU, Y

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	17.6 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects ③ 8 h
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	4.3 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	2.5 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects ③ 8 h
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	1.25 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects ③ 8 h
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	1.25 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	25.6 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	130 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	25.6 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	130 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	6.25 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	17.5 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 6/14

OBTEGO R-405

Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	26 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	6.25 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	17.5 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	26 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	26,400 mg/m ³	① DNEL Consumer ② Acute - inhalation, systemic effects ③ 0.25 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	26,400 mg/m ³	① DNEL Consumer ② Acute - inhalation, systemic effects ③ 0.25 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	3.6 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	3.6 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	7.2 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	7.2 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	1.56 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	4 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	1.56 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects ③ 8 h
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	4 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects ③ 8 h
KATHON CG CAS No.: 55965-84-9	0.02 mg/m ³	① DNEL worker ② Long-term - inhalation, local effects ③ 8 h

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 7/14

OBTEGO R-405

Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
KATHON CG CAS No.: 55965-84-9	0.02 mg/m ³	① DNEL Consumer ② Long-term - inhalation, local effects ③ 8 h
KATHON CG CAS No.: 55965-84-9	0.04 mg/m ³	① DNEL worker ② Acute - inhalation, local effects ③ 0.25 h
KATHON CG CAS No.: 55965-84-9	0.04 mg/m ³	① DNEL Consumer ② Acute - inhalation, local effects ③ 0.25 h
KATHON CG CAS No.: 55965-84-9	0.09 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects ③ 8 h
KATHON CG CAS No.: 55965-84-9	0.11 mg/kg bw/day	① DNEL Consumer ② Acute - oral, systemic effects ③ 0.25 h

Substance name	PNEC Value	① PNEC type
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	19 mg/kg sediment dw	① PNEC sediment, freshwater
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	1.9 mg/kg sediment dw	① PNEC sediment, freshwater
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	1.9 mg/kg sediment dw	① PNEC sediment, marine water
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	0.19 mg/kg sediment dw	① PNEC sediment, marine water
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	4.47 mg/kg soil dw	① PNEC soil
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	0.23 mg/kg soil dw	① PNEC soil
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	56 mg/kg	① PNEC secondary poisoning
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	0.75 mg/kg sediment dw	① PNEC sediment, freshwater
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	0.075 mg/kg sediment dw	① PNEC sediment, marine water
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	7.1 mg/kg soil dw	① PNEC soil
KATHON CG CAS No.: 55965-84-9	3.39 µg/L	① PNEC aquatic, freshwater
KATHON CG CAS No.: 55965-84-9	3.39 µg/L	① PNEC aquatic, marine water
KATHON CG CAS No.: 55965-84-9	0.23 mg/L	① PNEC sewage treatment plant

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 8/14

OBTEGO R-405

Substance name	PNEC Value	① PNEC type
KATHON CG CAS No.: 55965-84-9	0.027 mg/kg sediment dw	① PNEC sediment, freshwater
KATHON CG CAS No.: 55965-84-9	0.027 mg/kg sediment dw	① PNEC sediment, marine water
KATHON CG CAS No.: 55965-84-9	0.01 mg/kg soil dw	① PNEC soil

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 DIN EN ISO 16321-1

Skin protection:

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

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 Use suitable breathing apparatus. according to recognised standards such as: EN 136 / EN 14387. Filtering device (full mask or mouthpiece) with filter: P2

Other protection measures:

Wear suitable protective clothing.

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: yellow

Odour: not determined

flammability: No

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	≈ 4.5	20 °C	
Melting point	No data available		
Freezing point	No data available		
Initial boiling point and boiling range	No data available		
Flash point	not applicable		
Evaporation rate	No data available		
Auto-ignition temperature	not applicable		
Upper/lower flammability or explosive limits	No data available		
Vapour pressure	No data available		
Vapour density	No data available		
Density	≈ 1 g/cm ³	20 °C	① DIN EN ISO 2811-2
Bulk density	not applicable		
Water solubility	completely miscible	20 °C	
Dynamic viscosity	No data available		

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 9/14

OBTEGO R-405

Parameter	Value	at °C	① Method ② Remark
Kinematic viscosity	No data available		

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. The product itself does not burn.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No known hazardous reactions.

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

No known hazardous decomposition products. In case of fire: Gases/vapours, toxic

SECTION 11: Toxicological information

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

formic acid CAS No.: 64-18-6 EC No.: 200-579-1

ATE (oral)¹: 500 mg/kg

ATE (inhalation, vapour)¹: 7.4 mg/L

LD₅₀ oral: 730 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)

LD₅₀ dermal: >2,000 mg/kg (rat) OECD Guideline 402 (Acute Dermal Toxicity)

LC₅₀ Acute inhalation toxicity (vapour): 7.85 mg/L 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity)

triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2

LD₅₀ oral: ≥5,110 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)

LD₅₀ dermal: 6,730 mg/kg (rabbit) other: TSCA

trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0

LD₅₀ oral: >2,007 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)

LD₅₀ dermal: >2,007 mg/kg (rat) OECD Guideline 402 (Acute Dermal Toxicity)

acetic acid CAS No.: 64-19-7 EC No.: 200-580-7

LD₅₀ oral: 3,310 mg/kg (Ratte)

LD₅₀ dermal: 1,130 mg/kg (Kaninchen)

LC₅₀ Acute inhalation toxicity (vapour): >8.5 - <9.9 mg/L 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity)

¹: Acute Toxicity Estimate. Harmonised (legal) classification.

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:

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

Serious eye damage/irritation:

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

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 10/14

OBTEGO R-405

Respiratory or skin sensitisation:

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

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.

11.2. Information on other hazards

Endocrine disrupting properties:

The substance/mixture does not contain components that are endocrine disruptors according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more..

SECTION 12: Ecological information

12.1. Toxicity

formic acid CAS No.: 64-18-6 EC No.: 200-579-1
LC₅₀: 130 mg/L 4 d (fish, Danio rerio (previous name: Brachydanio rerio)) OECD Guideline 203 (Fish, Acute Toxicity Test)
LC₅₀: 1,308 mg/L 4 d (crustaceans, Crangon crangon) other: Guidelines of the Ministry of Agriculture, Fisheries and Food, U.K.
EC₅₀: 1,240 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)
EC₅₀: 365 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
NOEC: <76.8 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)
NOEC: ≥100 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)
LOEC: 76.8 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)
LOEC: >100 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
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, Raphidocelis subcapitata (previous names: Pseudokirchneriella 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)
NOEC: ≥0.13 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)
NOEC: 0.036 mg/L 28 d (fish, Pimephales promelas) OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)
NOEC: ≥0.049 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
LOEC: >0.036 mg/L 28 d (fish, Pimephales promelas) OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)
LOEC: 0.376 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 11/14

OBTEGO R-405

trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0
LC₅₀ : >200 mg/L 4 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)) OECD Guideline 203 (Fish, Acute Toxicity Test)
EC₅₀ : >120 mg/L 3 d (Algae/water plant, <i>Raphidocelis subcapitata</i> (previous names: <i>Pseudokirchneriella subcapitata</i> , <i>Selenastrum capricornutum</i>)) OECD Guideline 201 (Alga, Growth Inhibition Test)
EC₅₀ : >500 mg/L 2 d (crustaceans, <i>Daphnia magna</i>) EU Method C.2 (Acute Toxicity for <i>Daphnia</i>)
NOEC : ≥120 mg/L 3 d (Algae/water plant, <i>Raphidocelis subcapitata</i> (previous names: <i>Pseudokirchneriella subcapitata</i> , <i>Selenastrum capricornutum</i>)) OECD Guideline 201 (Alga, Growth Inhibition Test)
NOEC : ≥110 mg/L 4 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)) OECD Guideline 203 (Fish, Acute Toxicity Test)
NOEC : 10 mg/L 21 d (crustaceans, <i>Daphnia magna</i>) EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
LOEC : >10 mg/L 21 d (crustaceans, <i>Daphnia magna</i>) EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
acetic acid CAS No.: 64-19-7 EC No.: 200-580-7
LC₅₀ : 79 – 273 mg/L 4 d (fish, <i>Fisch</i>)
LC₅₀ : 52.6 – 180 mg/L 2 d (crustaceans, <i>Krustentiere</i>)
EC₅₀ : 65 – 65 mg/L 2 d (crustaceans, <i>Krustentiere</i>)
LC₅₀ : >300.82 mg/L 4 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>))
EC₅₀ : >300.82 mg/L 3 d (Algae/water plant, <i>Skeletonema costatum</i>) ISO 10253 (Water quality - Marine Algal Growth Inhibition Test with <i>Skeletonema costatum</i> and <i>Phaeodactylum tricornutum</i>)
EC₅₀ : >300.82 mg/L 2 d (crustaceans, <i>Daphnia magna</i>)
NOEC : 300.82 mg/L 3 d (Algae/water plant, <i>Skeletonema costatum</i>) ISO 10253 (Water quality - Marine Algal Growth Inhibition Test with <i>Skeletonema costatum</i> and <i>Phaeodactylum tricornutum</i>)
NOEC : 300.82 mg/L 4 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>))

12.2. Persistence and degradability

formic acid CAS No.: 64-18-6 EC No.: 200-579-1
Biodegradation : —
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
Biodegradation : Yes, slowly

12.3. Bioaccumulative potential

formic acid CAS No.: 64-18-6 EC No.: 200-579-1
Bioconcentration factor (BCF) : 3.162 L/kg
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
Log K_{OW} : 6.41
Bioconcentration factor (BCF) : 1,980 Species: <i>Cyprinus carpio</i>
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0
Log K_{OW} : 0.7
acetic acid CAS No.: 64-19-7 EC No.: 200-580-7
Log K_{OW} : 0.31
Bioconcentration factor (BCF) : 3.16 Species: other: fish

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

formic acid CAS No.: 64-18-6 EC No.: 200-579-1
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.
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0
Results of PBT and vPvB assessment : This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
acetic acid CAS No.: 64-19-7 EC No.: 200-580-7
Results of PBT and vPvB assessment : —

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 12/14

OBTEGO R-405

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

08 02 99	Wastes not otherwise specified
----------	--------------------------------

Waste code packaging

15 01 02	Plastic packaging
----------	-------------------

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			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

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.

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1

OBTEGO
NOT JUST SURFACE

Page 13/14

OBTEGO R-405

Other regulations (EU):

2008/98/EC, 2001/118/EC, 1999/13/EC, 2004/42/EC, (EU) 2015/830, 75/324/EEC, 2008/47/EC

Occupational accident insurance, 2008/68/EC, (EC) No. 648/2004

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds VOC-Wert 30 g/L

VOC EU Limit (2004/42/EG) (cat. IIA/h):30 g/L, VOC value 27 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. BlmschV)

Remark:

Not subject to StörfallVO.

Water hazard class

WGK:

1 - slightly hazardous to water

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
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	LD ₅₀ oral; LD ₅₀ dermal; LC ₅₀ Acute inhalation toxicity (vapour); LC ₅₀ ; EC ₅₀ ; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/
triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2	LD ₅₀ oral; LD ₅₀ dermal; LC ₅₀ ; EC ₅₀ ; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	LD ₅₀ oral; LD ₅₀ dermal; LC ₅₀ ; EC ₅₀ ; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/
acetic acid CAS No.: 64-19-7 EC No.: 200-580-7	LC ₅₀ Acute inhalation toxicity (vapour); LC ₅₀ ; EC ₅₀ ; NOEC	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]

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

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

Hazard statements	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 10 Sept 2026

Version: 2.2, replaces version 2.1



Page 14/14

OBTEGO R-405

Hazard statements	
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
Supplemental hazard information	
EUH071	Corrosive to the respiratory tract.

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.