

# SAFETY DATA SHEET

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

Date of creation: 13 Feb 2025

Revised on: 12 May 2026

Version: 2.1, replaces version 2

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## 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

E-mail: [sdb@obtego.com](mailto:sdb@obtego.com)

Website: [www.obtego.com](http://www.obtego.com)

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

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

No data available

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

| Product identifiers                                                            | Substance name<br>Classification according to Regulation (EC) No 1272/2008 [CLP]                                                                                                                                                                              | Concentration         |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| CAS No.: 2943-75-1<br>EC No.: 220-941-2<br>REACH No.:<br>01-2119972313-39-0001 | <b>triethoxyoctylsilane</b><br>Skin Irrit. 2 (H315)<br> Warning                                                                                                            | 0 - ≤ 2<br>weight-%   |
| CAS No.: 1185-55-3<br>EC No.: 214-685-0                                        | <b>trimethoxy(methyl)silane</b><br>Acute Tox. 4 (H302), Flam. Liq. 2 (H225)<br>  Danger | 0 - < 1.5<br>weight-% |

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| Product identifiers                                              | Substance name<br>Classification according to Regulation (EC) No 1272/2008 [CLP]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Concentration       |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| CAS No.: 64-18-6<br>EC No.: 200-579-1<br>Index No.: 607-001-00-0 | <b>formic acid</b><br>Acute Tox. 3 (H331), Acute Tox. 4 (H302), Eye Dam. 1 (H318),<br>Flam. Liq. 3 (H226), Met. Corr. 1 (H290), Skin Corr. 1A (H314)<br>   Danger EUH071<br><b>Specific concentration limit (SCL)</b><br>Flam. Liq. 3; H226: C ≥ 85%<br>Skin Corr. 1A; H314: C ≥ 90%<br>Skin Corr. 1B; H314: 10% ≤ C < 90%<br>Skin Irrit. 2; H315: 2% ≤ C < 10%<br>Eye Dam. 1; H318: C ≥ 10%<br>Eye Irrit. 2; H319: 2% ≤ C < 10%<br><b>Acute Toxicity Estimate</b><br>ATE (oral) 500 mg/kg<br>ATE (dermal) > 2,000 mg/kg<br>ATE (inhalation, vapour) 7.4 mg/L | 0 - < 1<br>weight-% |
| CAS No.: 64-19-7<br>EC No.: 200-580-7<br>Index No.: 607-002-00-6 | <b>acetic acid</b><br>Flam. Liq. 3 (H226), Skin Corr. 1A (H314)<br>  Danger<br><b>Specific concentration limit (SCL)</b><br>Skin Corr. 1A; H314: C ≥ 90%<br>Skin Corr. 1B; H314: 25% ≤ C < 90%<br>Skin Irrit. 2; H315: 10% ≤ C < 25%<br>Eye Dam. 1; H318: C ≥ 25%<br>Eye Irrit. 2; H319: 10% ≤ C < 25%<br><b>Acute Toxicity Estimate</b><br>ATE (oral) 3,310 mg/kg<br>ATE (dermal) 1,130 mg/kg<br>ATE (inhalation, vapour) > 8.5 - < 9.9 mg/L                                                                                                                                                                                                  | 0 - < 1<br>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.

### 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.

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### 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.

## 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.

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#### 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<br>(country of origin) | Substance name                                              | ① Long-term occupational exposure limit value<br>② Short-term occupational exposure limit value<br>③ Instantaneous value<br>④ Monitoring and observation processes<br>⑤ Remark |
|-----------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IOELV (EU)                              | <b>formic acid</b><br>CAS No.: 64-18-6<br>EC No.: 200-579-1 | ① 5 ppm (9 mg/m <sup>3</sup> )                                                                                                                                                 |
| TRGS 900 (DE)                           | <b>formic acid</b><br>CAS No.: 64-18-6<br>EC No.: 200-579-1 | ① 5 ppm (9.5 mg/m <sup>3</sup> )<br>② 10 ppm (19 mg/m <sup>3</sup> )<br>⑤ DFG, EU, Y                                                                                           |
| IOELV (EU)<br>from 21 Feb 2017          | <b>acetic acid</b><br>CAS No.: 64-19-7<br>EC No.: 200-580-7 | ① 10 ppm (25 mg/m <sup>3</sup> )<br>② 20 ppm (50 mg/m <sup>3</sup> )                                                                                                           |
| TRGS 900 (DE)                           | <b>acetic acid</b><br>CAS No.: 64-19-7<br>EC No.: 200-580-7 | ① 10 ppm (25 mg/m <sup>3</sup> )<br>② 20 ppm (50 mg/m <sup>3</sup> )<br>⑤ DFG, EU, Y                                                                                           |
| IOELV (EU)                              | <b>methanol</b><br>CAS No.: 67-56-1<br>EC No.: 200-659-6    | ① 200 ppm (260 mg/m <sup>3</sup> )<br>⑤ (may be absorbed through the skin)                                                                                                     |
| TRGS 900 (DE)<br>from 13 Mar 2020       | <b>methanol</b><br>CAS No.: 67-56-1<br>EC No.: 200-659-6    | ① 100 ppm (130 mg/m <sup>3</sup> )<br>② 200 ppm (260 mg/m <sup>3</sup> )<br>⑤ (kann über die Haut aufgenommen werden) DFG, EU, H, Y                                            |

##### 8.1.2. Biological limit values

No data available

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#### 8.1.3. DNEL-/PNEC-values

| Substance name                                                             | DNEL value           | ① DNEL type<br>② Exposure route                         |
|----------------------------------------------------------------------------|----------------------|---------------------------------------------------------|
| <b>trimethoxy(methyl)silane</b><br>CAS No.: 1185-55-3<br>EC No.: 214-685-0 | 0.38 mg/kg<br>bw/day | ① DNEL worker<br>② Long-term - dermal, systemic effects |
| <b>trimethoxy(methyl)silane</b><br>CAS No.: 1185-55-3<br>EC No.: 214-685-0 | 0.26 mg/kg<br>bw/day | ① DNEL worker<br>② Long-term - oral, systemic effects   |
| Substance name                                                             | PNEC Value           | ① PNEC type                                             |
| <b>trimethoxy(methyl)silane</b><br>CAS No.: 1185-55-3<br>EC No.: 214-685-0 | 1.3 mg/L             | ① PNEC aquatic, freshwater                              |
| <b>trimethoxy(methyl)silane</b><br>CAS No.: 1185-55-3<br>EC No.: 214-685-0 | 0.19 mg/kg<br>bw/day | ① PNEC sediment, freshwater                             |
| <b>trimethoxy(methyl)silane</b><br>CAS No.: 1185-55-3<br>EC No.: 214-685-0 | 0.48 mg/kg<br>bw/day | ① PNEC sediment, marine water                           |
| <b>trimethoxy(methyl)silane</b><br>CAS No.: 1185-55-3<br>EC No.: 214-685-0 | 4.8 mg/kg bw/<br>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. 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<br>② Remark |
|---------------|-------------------|-------|----------------------|
| pH            | ≈ 4.5             | 20 °C |                      |
| Melting point | No data available |       |                      |

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| Parameter                                    | Value                 | at °C | ① Method<br>② Remark |
|----------------------------------------------|-----------------------|-------|----------------------|
| 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 <sup>3</sup> | 20 °C |                      |
| Bulk density                                 | not applicable        |       |                      |
| Water solubility                             | completely miscible   | 20 °C |                      |
| Dynamic viscosity                            | No data available     |       |                      |
| 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

|                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------|
| <b>formic acid</b> CAS No.: 64-18-6 EC No.: 200-579-1                                                                         |
| <b>ATE (oral)<sup>1</sup>:</b> 500 mg/kg                                                                                      |
| <b>ATE (inhalation, vapour)<sup>1</sup>:</b> 7.4 mg/L                                                                         |
| <b>LD<sub>50</sub> oral:</b> 730 mg/kg (rat) OECD Guideline 401 (Acute Oral Toxicity)                                         |
| <b>LD<sub>50</sub> dermal:</b> >2,000 mg/kg (rat) OECD Guideline 402 (Acute Dermal Toxicity)                                  |
| <b>LC<sub>50</sub> Acute inhalation toxicity (vapour):</b> 7.85 mg/L 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity) |
| <b>triethoxyoctylsilane</b> CAS No.: 2943-75-1 EC No.: 220-941-2                                                              |
| <b>LD<sub>50</sub> oral:</b> >5,110 mg/kg (Rat) OECD 401                                                                      |
| <b>LD<sub>50</sub> dermal:</b> 6,730 mg/kg (Rabbit) OECD 402                                                                  |
| <b>LC<sub>50</sub> Acute inhalation toxicity (vapour):</b> 22 mg/L 4 h (Rat) OECD 403                                         |
| <b>trimethoxy(methyl)silane</b> CAS No.: 1185-55-3 EC No.: 214-685-0                                                          |
| <b>LD<sub>50</sub> oral:</b> ≈11,685 mg/kg (Rat)                                                                              |
| <b>LD<sub>50</sub> dermal:</b> >9,500 mg/kg (Rabbit) OECD 402                                                                 |
| <b>LC<sub>50</sub> Acute inhalation toxicity (dust/mist):</b> >42.1 mg/L 6 h (Rat) OECD 403                                   |

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|                                                       |
|-------------------------------------------------------|
| <b>acetic acid</b> CAS No.: 64-19-7 EC No.: 200-580-7 |
|-------------------------------------------------------|

|                                                  |
|--------------------------------------------------|
| <b>LD<sub>50</sub> oral:</b> 3,310 mg/kg (Ratte) |
|--------------------------------------------------|

|                                                        |
|--------------------------------------------------------|
| <b>LD<sub>50</sub> dermal:</b> 1,130 mg/kg (Kaninchen) |
|--------------------------------------------------------|

|                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>LC<sub>50</sub> Acute inhalation toxicity (vapour):</b> >8.5 - <9.9 mg/L 4 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity) |
|--------------------------------------------------------------------------------------------------------------------------------------|

<sup>1</sup>: 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.

### 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

|                                                       |
|-------------------------------------------------------|
| <b>formic acid</b> CAS No.: 64-18-6 EC No.: 200-579-1 |
|-------------------------------------------------------|

|                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LC<sub>50</sub>:</b> 130 mg/L 4 d (fish, Danio rerio (previous name: Brachydanio rerio)) OECD Guideline 203 (Fish, Acute Toxicity Test) |
|--------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LC<sub>50</sub>:</b> 1,308 mg/L 4 d (crustaceans, Crangon crangon) other: Guidelines of the Ministry of Agriculture, Fisheries and Food, U.K. |
|--------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EC<sub>50</sub>:</b> 1,240 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------|
| <b>EC<sub>50</sub>:</b> 365 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
|------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NOEC:</b> <76.8 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                               |
|---------------------------------------------------------------------------------------------------------------|
| <b>NOEC:</b> ≥100 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test) |
|---------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LOEC:</b> 76.8 mg/L 3 d (Algae/water plant, Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                               |
|---------------------------------------------------------------------------------------------------------------|
| <b>LOEC:</b> >100 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test) |
|---------------------------------------------------------------------------------------------------------------|

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|                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>acetic acid</b> CAS No.: 64-19-7 EC No.: 200-580-7                                                                                                                                                       |
| <b>LC<sub>50</sub></b> : 79 – 273 mg/L 4 d (fish, Fisch)                                                                                                                                                    |
| <b>LC<sub>50</sub></b> : 52.6 – 180 mg/L 2 d (crustaceans, Krustentiere)                                                                                                                                    |
| <b>EC<sub>50</sub></b> : 65 – 65 mg/L 2 d (crustaceans, Krustentiere)                                                                                                                                       |
| <b>LC<sub>50</sub></b> : >300.82 mg/L 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))                                                                                                      |
| <b>EC<sub>50</sub></b> : >300.82 mg/L 3 d (Algae/water plant, Skeletonema costatum) ISO 10253 (Water quality - Marine Algal Growth Inhibition Test with Skeletonema costatum and Phaeodactylum tricornutum) |
| <b>EC<sub>50</sub></b> : >300.82 mg/L 2 d (crustaceans, Daphnia magna)                                                                                                                                      |
| <b>NOEC</b> : 300.82 mg/L 3 d (Algae/water plant, Skeletonema costatum) ISO 10253 (Water quality - Marine Algal Growth Inhibition Test with Skeletonema costatum and Phaeodactylum tricornutum)             |
| <b>NOEC</b> : 300.82 mg/L 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri))                                                                                                                  |

### 12.2. Persistence and degradability

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

### 12.3. Bioaccumulative potential

|                                                                       |
|-----------------------------------------------------------------------|
| <b>formic acid</b> CAS No.: 64-18-6 EC No.: 200-579-1                 |
| <b>Bioconcentration factor (BCF)</b> : 3.162 L/kg                     |
| <b>triethoxyoctylsilane</b> CAS No.: 2943-75-1 EC No.: 220-941-2      |
| <b>Log K<sub>OW</sub></b> : 6.41                                      |
| <b>Bioconcentration factor (BCF)</b> : 1,980 Species: Cyprinus carpio |
| <b>acetic acid</b> CAS No.: 64-19-7 EC No.: 200-580-7                 |
| <b>Log K<sub>OW</sub></b> : 0.31                                      |
| <b>Bioconcentration factor (BCF)</b> : 3.16 Species: other: fish      |

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

|                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------|
| <b>formic acid</b> CAS No.: 64-18-6 EC No.: 200-579-1                                                                |
| <b>Results of PBT and vPvB assessment</b> : —                                                                        |
| <b>triethoxyoctylsilane</b> CAS No.: 2943-75-1 EC No.: 220-941-2                                                     |
| <b>Results of PBT and vPvB assessment</b> : This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. |
| <b>acetic acid</b> CAS No.: 64-19-7 EC No.: 200-580-7                                                                |
| <b>Results of PBT and vPvB assessment</b> : —                                                                        |

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 |
|----------|--------------------------------|

# SAFETY DATA SHEET

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

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#### 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)                         |
|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| <b>14.1. UN number or ID number</b>                        |                                                            |                                                            |                                                            |
| 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. |
| <b>14.2. UN proper shipping name</b>                       |                                                            |                                                            |                                                            |
| 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. |
| <b>14.3. Transport hazard class(es)</b>                    |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |
| <b>14.4. Packing group</b>                                 |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |
| <b>14.5. Environmental hazards</b>                         |                                                            |                                                            |                                                            |
| not relevant                                               | not relevant                                               | not relevant                                               | not relevant                                               |
| <b>14.6. Special precautions for user</b>                  |                                                            |                                                            |                                                            |
| 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.

##### Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.

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

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).

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### Störfallverordnung (12. BImSchV)

#### for substances contained in the product:

This product is not assigned to a hazard category.

#### 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](http://www.euphrac.eu)

### 16.3. Key literature references and sources for data

| Substance name                                              | Type                                                                                                                                                           | source of supply                                                                                  |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>formic acid</b><br>CAS No.: 64-18-6<br>EC No.: 200-579-1 | LD <sub>50</sub> oral; LD <sub>50</sub> dermal; LC <sub>50</sub><br>Acute inhalation toxicity<br>(vapour); LC <sub>50</sub> ; EC <sub>50</sub> ; NOEC;<br>LOEC | Source: European Chemicals Agency,<br><a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |
| <b>acetic acid</b><br>CAS No.: 64-19-7<br>EC No.: 200-580-7 | LC <sub>50</sub> Acute inhalation toxicity<br>(vapour); LC <sub>50</sub> ; EC <sub>50</sub> ; NOEC                                                             | Source: European Chemicals Agency,<br><a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |

### 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.                  |
| 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.