SAFETY DATA SHEET

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

Revision date: 5 Sept 2022
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Version: 1.1

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

No data available

1.3. Details of the supplier of the safety data sheet

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

Modern concrete solutions d.o.o.
Štihova ulica 10
1000 Ljubljana
Slovenia
Telephone: +386 40 655 235 E-mail: info@linolit.com Website: www.linolit.com

1.4. Emergency telephone number

24h: +386 40 655 235

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]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

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/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 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-%

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Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
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%	0 – < 1 weight-%
CAS No.: 64-18-6 EC No.: 200-579-1 Index No.: 607-001-00-0	**formic acid** Skin Corr. 1A (H314)  Danger **Specific concentration limit (SCL)** 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%	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:
After contact with skin, wash immediately with plenty of water and soap.

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.

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. Avoid breathing dust/fume/gas/mist/vapours/spray.

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.

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.

Advices on general occupational hygiene

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

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:
Keep/Store only in original container.

Requirements for storage rooms and vessels:
The floor should be leak tight, jointless and not absorbent.

Hints on storage assembly:
Do not store together with: Food and feedingstuffs

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)
No data available

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) from 21 Feb 2017	**acetic acid** CAS No.: 64-19-7 EC No.: 200-580-7	① 10 ppm (25 mg/m³) ② 20 ppm (50 mg/m³)
TRGS 900 (DE)	**acetic acid** CAS No.: 64-19-7 EC No.: 200-580-7	① 10 ppm (25 mg/m³) ② 20 ppm (50 mg/m³) ⑤ DFG, EU, Y
IOELV (EU)	**formic acid** CAS No.: 64-18-6 EC No.: 200-579-1	① 5 ppm (9 mg/m³)
TRGS 900 (DE)	**formic acid** CAS No.: 64-18-6 EC No.: 200-579-1	① 5 ppm (9.5 mg/m³) ② 10 ppm (19 mg/m³) ⑤ DFG, EU, Y

8.1.2. Biological limit values
No data available

8.1.3. DNEL-/PNEC-values
No data available

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: > 120 min. In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

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

Other protection measures:
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
Colour: white
Odour: charakteristisch

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	4.5	20 °C	
Melting point	*not determined*		
Freezing point	*not determined*		
Initial boiling point and boiling range	≈ 100 °C		
Decomposition temperature	*not determined*		
Flash point	*not determined*		
Evaporation rate	*not determined*		
Auto-ignition temperature	*not determined*		
Upper/lower flammability or explosive limits	*not determined*		
Vapour pressure	*not determined*		
Vapour density	*not determined*		
Density	1 g/cm³	20 °C	
Relative density	*not determined*		
Bulk density	*not determined*		
Water solubility	completely miscible	20 °C	
Partition coefficient: n-octanol/water	*not determined*		
Dynamic viscosity	*not determined*		
Kinematic viscosity	*not determined*		

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.
not relevant

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

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	
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 (Rat)	
LC_{50} Acute inhalation toxicity (vapour): >42.1 mg/L (Rat)	
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	
LD_{50} oral: 1,100 mg/kg (Ratte)	
LC_{50} Acute inhalation toxicity (vapour): 7.85 mg/L 4 h (Ratte)	

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.

Additional information:
No data available

11.2. Information on other hazards
No data available

SECTION 12: Ecological information

12.1. Toxicity

trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0
LC_{50}: >110 mg/L 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri)) OECD Guideline 203 (Fish, Acute Toxicity Test)
EC_{50}: >3.6 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)
EC_{50}: >122 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
NOEC: ≥3.6 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)) OECD Guideline 201 (Alga, Growth Inhibition Test)
NOEC: ≥110 mg/L 4 d (fish, Oncorhynchus mykiss (previous name: Salmo gairdneri)) OECD Guideline 203 (Fish, Acute Toxicity Test)
NOEC: ≥122 mg/L 2 d (crustaceans, Daphnia magna) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
NOEC: ≥10 mg/L 21 d (crustaceans, Daphnia magna) OECD Guideline 211 (Daphnia magna Reproduction Test)
formic acid CAS No.: 64-18-6 EC No.: 200-579-1
EC_{50}: 151 mg/L 2 d (crustaceans, Krustentiere)

12.2. Persistence and degradability

triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
Biodegradation: Yes, slowly

12.3. Bioaccumulative potential

triethoxyoctylsilane CAS No.: 2943-75-1 EC No.: 220-941-2
Log K_{OW}: 6.41
Bioconcentration factor (BCF): 1,980 Species: Cyprinus carpio
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0
Log K_{OW}: 2.4

12.4. Mobility in soil
No data available

12.5. 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: —
acetic acid CAS No.: 64-19-7 EC No.: 200-580-7
Results of PBT and vPvB assessment: —
formic acid CAS No.: 64-18-6 EC No.: 200-579-1
Results of PBT and vPvB assessment: —

12.6. Endocrine disrupting properties
No data available

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

Other regulations (EU):
2008/98/EC , 2001/118/EC, 1999/13/EC, 2004/42/EC, (EC) No. 1907/2006, (EU) 2015/830, 75/324/EEC, 2008/47/EC, (EC) No. 1272/2008, 2008/68/EC, (EC) No. 648/2004
Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:
VOC value 29 g/L
VOC EU Limit (2004/42/EG) (cat. IIA/h): 30 g/L, VOC value 29 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)

Remark:
Not subject to StörfallVO.

Water hazard class

WGK:

1 - schwach wassergefährdend

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
trimethoxy(methyl)silane CAS No.: 1185-55-3 EC No.: 214-685-0	LC_{50}; EC_{50}; NOEC	Source: European Chemicals Agency, http://echa.europa.eu/

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

Hazard statements	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
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.

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.