

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Orthocryl-liquid

Revision date: 09.09.2020

Product code: 161-100

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Orthocryl-liquid

Further trade names

Article No.: 160-501-00, 160-502-00, 160-600-00, 161-100-00, 161-127-00, 161-128-00, 161-129-00,
 161-130-00, 161-131-00, 161-132-00, 161-133-00, 161-134-00, 161-135-00, 161-136-00, 161-137-00,
 161-138-00, 161-139-00, 161-150-00, 161-300-00, 161-350-00, 161-912-00

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

Health services.

1.3. Details of the supplier of the safety data sheet

| | | |
|---------------|-------------------------|---------------------------|
| Company name: | DENTAURUM GmbH & Co. KG | |
| Street: | Turnstr. 31 | |
| Place: | D-75228 Ispringen | |
| Telephone: | +49 7231 803 0 | Telefax: +49 7231 803 295 |
| e-mail: | info@dentaurum.de | |
| Internet: | www.dentaurum.com | |

Further Information

Emergency telephone:
 07:00 - 16:15 (Mo - Do), 07:00 - 13:15 (Fr) +49 7231 803 184
 16:15 - 18:00 (Mo - Do), 13:15 - 18:00 (Fr) +49 7231 803 0

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:
 Flammable liquid: Flam. Liq. 2
 Skin corrosion/irritation: Skin Irrit. 2
 Respiratory or skin sensitisation: Skin Sens. 1
 Specific target organ toxicity - single exposure: STOT SE 3
 Hazard Statements:
 Highly flammable liquid and vapour.
 Causes skin irritation.
 May cause an allergic skin reaction.
 May cause respiratory irritation.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate
 ethylene dimethacrylate

Signal word: Danger

Pictograms:**Hazard statements**

H225 Highly flammable liquid and vapour.
 H315 Causes skin irritation.

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H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other hazards

none

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate

red, pink-transparent : colour index S.R. 111, S.R.52

green: colour index S.B.97, S.Y.93

blue/neonblau: colour index S.B. 97

yellow: colour index S.Y. 93

hot pink: colour index D.V.26, D.V.31

türkis: colour index S.B. 67

smaragdgrün: colour index S.B. 67, S.Y. 93

violet: colour index S.B. 97, S.V. 36

neongelb: colour index S.Y. 98

neonorange: colour index S.Y. 98

neongrün: colour index S.B. 67, S.Y. 93

neonpink: colour index S.R. 52

Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|--|--------------|----------|----------|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 80-62-6 | methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate | | | > 90 % |
| | 201-297-1 | 607-035-00-6 | | |
| | Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335 | | | |
| 97-90-5 | ethylene dimethacrylate | | | < 10 % |
| | 202-617-2 | 607-114-00-5 | | |
| | Skin Sens. 1, STOT SE 3; H317 H335 | | | |
| 2440-22-4 | 2-(2H-Benzotriazol-2-yl)-p-cresol | | | < 1 % |
| | 219-470-5 | | | |
| | Skin Sens. 1B, Aquatic Chronic 1; H317 H410 | | | |

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Remove casualty to fresh air and keep warm and at rest. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with: Water and soap. Subsequently wash off with: Polyethylene glykol 400. Remove contaminated, saturated clothing immediately. Medical treatment necessary.

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After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Caution if victim vomits: Risk of aspiration! Call a physician immediately.

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

Headache. drowsiness. Causes skin and eye irritation. Skin sensitisation

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

none

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water spray. Carbon dioxide (CO₂). Foam. Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe mist/vapours/spray.

Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Disposal: see section 13

Safe handling: see section 7

Personal protection equipment: see section 8

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe mist/vapours/spray. Vapours are heavier than air and will spread at floor level. Provide fresh air.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Use non-sparking tools.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep/Store only in original container. Protect against: Light.

Hints on joint storage

Do not store together with: Material, rich in oxygen, oxidizing.

7.3. Specific end use(s)

none

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|---------|---------------------|-----|-------------------|-----------|---------------|--------|
| 80-62-6 | Methyl methacrylate | 50 | 208 | | TWA (8 h) | WEL |
| | | 100 | 416 | | STEL (15 min) | WEL |

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe mist/vapours/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Separate storage of work clothes.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Recommendation:

Dermatril 740 Single-use gloves. NBR (Nitrile rubber). 0,11 mm penetration time (maximum wearing period): 0 min.

REF 162-907-00 (7/S), REF 162-908-00 (8/M), REF 162-909-00 (9/L)

Camapren 720, CR (polychloroprenes, Chloroprene rubber). 0,65 mm penetration time (maximum wearing period): > 10 min, KCL

Skin protection

Protective clothing

Respiratory protection

Do not breathe mist/vapours/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
 Colour: various, depending on coloration
 Odour: like: ester

pH-Value:

Test method
 not applicable ISO 976

Changes in the physical state

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| | |
|--|-------------------|
| Melting point: | -48 °C |
| Initial boiling point and boiling range: | 100,3 °C |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| Flash point: | 10 °C DIN 51376 |
| Sustaining combustion: | No data available |

Flammability

| | |
|--------|-------------------|
| Solid: | No data available |
| Gas: | No data available |

Explosive properties

No data available

| | |
|-------------------------|------------------|
| Lower explosion limits: | 2,1 vol. % |
| Upper explosion limits: | 12,5 vol. % |
| Ignition temperature: | 430 °C DIN 51794 |

Auto-ignition temperature

| | |
|--------|-------------------|
| Solid: | No data available |
| Gas: | No data available |

Decomposition temperature: No data available

Oxidizing properties

No data available

| | |
|---------------------------------|------------------------|
| Vapour pressure: (at 20 °C) | 38,7 hPa |
| Vapour pressure: | No data available |
| Density (at 20 °C): | 0,94 g/cm ³ |
| Bulk density: | No data available |
| Water solubility: (at 20 °C) | 15,9 g/L |

Solubility in other solvents

miscible with most organic solvents

Partition coefficient: Distribution coefficient (n-octanol / water)
(log P O/W): 0,7Viscosity / dynamic:
(at 20 °C) Brookfield 0,63 mPa·s

Viscosity / kinematic: No data available

Flow time: No data available

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: No data available

9.2. Other information

Solid content: No data available

Relative vapour density at 20 °C (air=1): > 1

Odour threshold: 0,5 - 1,0 ppm

SECTION 10: Stability and reactivity

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10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid

This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

10.5. Incompatible materials

Reducing agent. Amines. Heavy metals. Peroxides. Oxidizing agents.

10.6. Hazardous decomposition products

none

Further information

Thermal decomposition: at room temperature none

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Acute toxicity (inhalant): 7093 ppm 4h

| CAS No | Chemical name | | | | |
|---------|--|-------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 80-62-6 | methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate | | | | |
| | oral | LD50 > 5000 mg/kg | Rat | | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | | |

Irritation and corrosivity

Irritant effect on the skin: Not an irritant. 24h

Irritant effect on the eye: Not an irritant.

Following inhalation: Lung irritation. Coughing. shortage of breath.

Sensitising effects

May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Longterm experiments do not indicate carcinogenic effects. No experimental indications of mutagenicity in-vitro exist.

STOT-single exposure

May cause respiratory irritation.

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.

SECTION 12: Ecological information

12.1. Toxicity

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Algae toxicity: EC50: 37 mg/l 8d

Bacterial toxicity: Pseudomonas putida 100 mg/l

| CAS No | Chemical name | | | | | |
|---------|--|--------------|-----------|---------|--|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 80-62-6 | methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate | | | | | |
| | Acute fish toxicity | LC50 mg/l | > 79 | 96 h | Oncorhynchus mykiss (Rainbow trout) | |
| | Acute crustacea toxicity | EC50 | 69 mg/l | 48 h | Daphnia magna | |
| 97-90-5 | ethylene dimethacrylate | | | | | |
| | Acute fish toxicity | LC50 mg/l | 15,95 | 96 h | Brachydanio rerio (zebra-fish) | |
| | Acute crustacea toxicity | EC50 | 44,9 mg/l | 48 h | Daphnia magna | |

12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria).

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

none

12.5. Results of PBT and vPvB assessment

No

12.6. Other adverse effects

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Send to a hazardous waste incinerator facility under observation of official regulations.

List of Wastes Code - used product

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08);
waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent
mixtures; hazardous waste

Contaminated packaging

Water (with cleaning agent). Completely emptied packages can be recycled.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

UN 1247

14.2. UN proper shipping name:

METHYL METHACRYLATE MONOMER, STABILIZED

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3



Classification code:

F1

Special Provisions:

386

Limited quantity:

1 L

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Excepted quantity: E2
 Transport category: 2
 Hazard No: 339
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1247
14.2. UN proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Special Provisions: 386
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1247
14.2. UN proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: 386
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1247
14.2. UN proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: A209
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 353
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Yes.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Authorisations: SECTION 15: Regulatory information

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

Additional information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,3,4,6,7,8,9,10,14.

Indication of changes:

SECTION 2: Hazards identification

SECTION 4: First aid measures

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 14: Transport information

SECTION 15: Regulatory information

Relevant H and EUH statements (number and full text)

| | |
|------|---|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Further 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.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)