

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Orthocryl-liquid

Revision date: 11.01.2023

Product code: 161-100

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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/hearing 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
 neopink: colour index S.R. 52

Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	90 - < 95 %
	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	5 - < 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.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
80-62-6	201-297-1	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	90 - < 95 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg	
97-90-5	202-617-2	ethylene dimethacrylate	5 - < 10 %
		STOT SE 3; H335: >= 10 - 100	

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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.

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

General advice

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

Other information

Absorb with liquid-binding material (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

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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.

Advice on general occupational hygiene

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.

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

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
80-62-6	Methyl methacrylate	50	-		TWA (8 h)	
		100	-		STEL (15 min)	

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.

Individual protection measures, such as personal protective equipment

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

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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

Test method

Changes in the physical state

Melting point/freezing point:	-48 °C
Boiling point or 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 51755

Flammability

Solid/liquid:	No data available
Gas:	not applicable

Explosive properties

No data available

Lower explosion limits:	2,1 vol. %
Upper explosion limits:	12,5 vol. %
Auto-ignition temperature:	430 °C

Self-ignition temperature

Solid:	No data available
Gas:	No data available

Decomposition temperature:	No data available
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pH-Value:	not applicable
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Viscosity / dynamic: (at 20 °C)	Brookfield 0,63 mPa·s
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Viscosity / kinematic:	No data available
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Flow time:	No data available
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Water solubility: (at 20 °C)	15,9 g/L
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Solubility in other solvents

miscible with most organic solvents

Partition coefficient n-octanol/water:	Distribution coefficient (n-octanol / water) (log P O/W): 0,7	OECD 123
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Vapour pressure: (at 20 °C)	38,7 hPa
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Vapour pressure:	No data available
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Density (at 20 °C):	0,94 g/cm ³
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Bulk density:	No data available
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Relative vapour density:
(at 20 °C) 3,5

9.2. Other information

Sustaining combustion: No data available
 Oxidizing properties
 No data available

Solvent separation test: No data available
 Solvent content: > 95%
 Solid content: No data available
 Evaporation rate: No data available

Further Information

Odour threshold: 0,5 - 1,0 ppm

SECTION 10: Stability and reactivity

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 hazard classes as defined in Regulation (EC) No 1272/2008

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 mg/kg	> 5000	Rat	
	dermal	LD50 mg/kg	> 5000	Rabbit	

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Irritation and corrosivity

Irritant effect on the skin: non-irritant. 24h

Irritant effect on the eye: non-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.

11.2. Information on other hazards
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.

SECTION 12: Ecological information
12.1. Toxicity

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 > 79 mg/l	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 15,95 mg/l	96 h	Danio rerio (zebrafish)		
	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

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

No

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

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

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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 or ID 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
Transport category:	2
Hazard No:	339
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID 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 or ID 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

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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 or ID 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

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Yes.

14.7. Maritime transport in bulk according to IMO instruments

Authorisations: SECTION 15: Regulatory information

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):
 Entry 3, Entry 40, Entry 75

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): 1,9,11,14.

Indication of changes:

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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.)