SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

Chemical Anchoring CA1400

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

1.1. Product identifier

Product name : Chemical Anchoring CA1400
Registration number REACH : Not applicable (mixture)
Product type REACH : 2-component system

This product is a kit or a 2-component system. This safety data sheet has three parts: one with limited information on the 2-component system and two safety data sheets for the components.

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

1.2.1 Relevant identified uses

Adhesive

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
🖷 +32 14 42 65 14
msds@soudal.com

Manufacturer of the product

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
🖷 +32 14 42 65 14
msds@soudal.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

See separate components

2.2. Label elements

See separate components

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
Chemical Anchoring CA1400, Component A			Eye Irrit. 2; H319 Skin Sens. 1; H317		
Chemical Anchoring CA1400, Component B			Eye Irrit. 2; H319 Skin Sens. 1; H317		

SECTION 14: Transport information

Road (ADR)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number	
Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Rail (RID)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number	
Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Inland waterways (ADN)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Sea (IMDG/IMSBC)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

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

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

Chemical Anchoring CA1400, Component A

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

1.1. Product identifier

Product name : Chemical Anchoring CA1400, Component A
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Adhesive: component

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
🖷 +32 14 42 65 14
msds@soudal.com

Manufacturer of the product

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
🖷 +32 14 42 65 14
msds@soudal.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Eye Irrit.	category 2	H319: Causes serious eye irritation.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.

2.2. Label elements

Contains: 2-hydroxyethyl methacrylate; ethylene dimethacrylate; hydroxypropyl methacrylate.

Signal word Warning

H-statements

H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

P-statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P280 Wear protective gloves and eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
2-hydroxyethyl methacrylate 01-2119490169-29	868-77-9 212-782-2	5%<C<15%	Eye Irrit. 2; H319 Skin Sens. 1; H317	(1)(2)(10)	Constituent
vinyltoluene	25013-15-4 246-562-2	1%<C<10%	Flam. Liq. 3; H226 Acute Tox. 4; H332 Asp. Tox. 1; H304 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315	(1)(2)(10)	Constituent
ethylene dimethacrylate 01-2119965172-38	97-90-5 202-617-2	1%<C<5%	STOT SE 3; H335 Skin Sens. 1; H317	(1)(8)(10)	Constituent
hydroxypropyl methacrylate	27813-02-1 248-666-3	1%<C<5%	Eye Irrit. 2; H319 Skin Sens. 1; H317	(1)(10)	Constituent
1,1'-(p-tolylimino)dipropan-2-ol 01-2119980937-17	38668-48-3 254-075-1	0.1%<C<1%	Acute Tox. 2; H300 Eye Dam. 1; H318 Aquatic Chronic 3; H412	(1)	Constituent

(8) Specific concentration limits, see heading 16
(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wipe off dry product from skin. Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Victim is fully conscious: immediately induce vomiting. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact:

Irritation of the eye tissue.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:
Water spray. Polyvalent foam. BC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:
Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture
Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours.

5.3. Advice for firefighters
5.3.1 Instructions:
No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:
Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
No naked flames.

6.1.1 Protective equipment for non-emergency personnel
See heading 8.2

6.1.2 Protective equipment for emergency responders
Gloves. Protective clothing.

Suitable protective clothing
See heading 8.2

6.2. Environmental precautions
Contain leaking substance. Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up
Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections
See heading 13.

SECTION 7: Handling and storage
The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling
Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Observe very strict hygiene - avoid contact. Keep container tightly closed. Remove contaminated clothing immediately. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities
7.2.1 Safe storage requirements:
Storage temperature: 5 - 25 °C. Store in a cool area. Store in a dry area. Keep only in the original container. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:
Heat sources, ignition sources, oxidizing agents, (strong) acids.

7.2.3 Suitable packaging material:
Synthetic material.

7.2.4 Non suitable packaging material:
No data available

7.3. Specific end use(s)
If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

2-Hydroxyethylmethacrylaat	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.04 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.24 mg/m³

Methylstyreen	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	10 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	50 mg/m³

Belgium

Vinyltoluène (tous isomères)	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	246 mg/m³
	Short time value	100 ppm
	Short time value	490 mg/m³

USA (TLV-ACGIH)

Vinyl toluene	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
	Short time value (TLV - Adopted Value)	100 ppm

Germany

Vinyltoluol (alle Isomeren)	Time-weighted average exposure limit 8 h (TRGS 900)	100 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	490 mg/m³

France

Vinyltoluènes (tous isomères)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	50 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	240 mg/m³

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL/DMEL - Workers

2-hydroxyethyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	4.9 mg/m³	
	Long-term systemic effects dermal	1.3 mg/kg bw/day	

vinyltoluene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	37 mg/m³	
	Long-term local effects inhalation	37 mg/m³	

ethylene dimethacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects oral	2.45 mg/m³	
	Long-term systemic effects dermal	1.3 mg/kg bw/day	

hydroxypropyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	14.7 mg/m³	
	Long-term systemic effects dermal	4.2 mg/kg bw/day	

1,1'-(p-tolylimino)dipropan-2-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2 mg/m³	
	Long-term systemic effects dermal	0.6 mg/kg bw/day	

DNEL/DMEL - General population

2-hydroxyethyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.9 mg/m³	
	Long-term systemic effects dermal	0.83 mg/kg bw/day	
	Long-term systemic effects oral	0.83 mg/kg bw/day	

ethylene dimethacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1.47 mg/m³	
	Long-term systemic effects dermal	100 mg/kg bw/day	
	Long-term systemic effects oral	100 mg/kg bw/day	

hydroxypropyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	8.8 mg/m³	
	Long-term systemic effects dermal	2.5 mg/kg bw/day	
	Long-term systemic effects oral	2.5 mg/kg bw/day	

1,1'-(p-tolylimino)dipropan-2-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.4 mg/m³	
	Long-term systemic effects dermal	0.3 mg/kg bw/day	
	Long-term systemic effects oral	0.3 mg/kg bw/day	

PNEC

2-hydroxyethyl methacrylate

Compartments	Value	Remark
Fresh water	0.482 mg/l	
Marine water	0.482 mg/l	
Aqua (intermittent releases)	1 mg/l	
STP	10 mg/l	
Fresh water sediment	3.79 mg/kg sediment dw	
Marine water sediment	3.79 mg/kg sediment dw	
Soil	0.476 mg/kg soil dw	

vinyltoluene

Compartments	Value	Remark
Fresh water	0.0498 mg/l	
Salt water	0.002 mg/l	
Aqua (intermittent releases)	0.013 mg/l	
Wastewater treatment plant	1 mg/l	
Fresh water sediment	0.684 mg/kg sediment dw	
Marine water sediment	0.0684 mg/kg sediment dw	
Soil	0.133 mg/kg soil dw	
Food	2.5 mg/kg food	

ethylene dimethacrylate

Compartments	Value	Remark
Fresh water	0.139 mg/l	
Marine water	0.0139 mg/l	
Aqua (intermittent releases)	0.15 mg/l	
STP	57 mg/l	
Fresh water sediment	1.6 mg/kg sediment dw	
Marine water sediment	0.16 mg/kg sediment dw	
Soil	0.239 mg/kg soil dw	

hydroxypropyl methacrylate

Compartments	Value	Remark
Fresh water	0.904 mg/l	
Marine water	0.904 mg/l	
Aqua (intermittent releases)	0.972 mg/l	
STP	10 mg/l	
Fresh water sediment	6.28 mg/kg sediment dw	
Marine water sediment	6.28 mg/kg sediment dw	
Soil	0.727 mg/kg soil dw	

1,1'-(p-tolylimino)dipropan-2-ol

Compartments	Value	Remark
Fresh water	0.017 mg/l	
Marine water	0.0017 mg/l	
Aqua (intermittent releases)	0.17 mg/l	
STP	199.5 mg/l	
Fresh water sediment	0.0782 mg/kg sediment dw	
Marine water sediment	0.00782 mg/kg sediment dw	
Soil	0.005 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Insufficient ventilation: wear respiratory protection.

b) Hand protection:

Gloves.

Materials	Breakthrough time	Thickness
nitrile rubber	>480 minutes	

- materials (good resistance)
  Nitrile rubber.

c) Eye protection:
  Safety glasses.

d) Skin protection:
  Protective clothing.

8.2.3 Environmental exposure controls:
  See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Paste
Odour	Characteristic odour
Odour threshold	No data available
Colour	Beige
Particle size	No data available
Explosion limits	0.9 - 9.5 vol %
Flammability	Non-flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Relative vapour density	Not applicable
Vapour pressure	No data available
Solubility	water ; insoluble
Relative density	No data available
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2. Other information

Absolute density	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Reacts with (strong) oxidizers and with (some) acids.

10.4. Conditions to avoid
Keep away from naked flames/heat. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: use spark-/explosionproof appliances and lighting system.

10.5. Incompatible materials
Oxidizing agents, (strong) acids.

10.6. Hazardous decomposition products
Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
11.1.1 Test results

Acute toxicity

Chemical Anchoring CA1400, Component A

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	ATE		> 5000 mg/kg bw		Rat	Calculated value	
Inhalation	ATE		> 100 mg/l		Rat	Calculated value	

2-hydroxyethyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		5564 mg/kg bw		Rat	Experimental value	
Dermal	LD50		> 5000 mg/kg	24 h	Rabbit (male)	Experimental value	

vinyltoluene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		2000 mg/kg - 5000 mg/kg		Rat (male)	Experimental value	
Dermal	LD50	Other	2000 mg/kg bw - 5000 mg/kg bw	24 h	Rabbit (male/female)	Experimental value	
Inhalation (vapours)	LC0		9.459 mg/l	6 h	Rat (male/female)	Experimental value	
Inhalation (vapours)			category 4			Literature study	

ethylene dimethacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Other	8700 mg/kg		Rat (male/female)	Literature study	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation						Data waiving	

hydroxypropyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	≥ 2000 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50		≥ 5000 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation						Data waiving	

1,1'-(p-tolylimino)dipropan-2-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	25 mg/kg bw - 200 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw/day	24 h	Rat (male/female)	Experimental value	
Inhalation						Data waiving	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating			24; 48; 72 hrs; 4; 5; 7 days	Rabbit	Experimental value	
Skin	Not irritating	Equivalent to OECD 404	24 h	24; 72 hours	Rabbit	Experimental value	

vinyltoluene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405			Rabbit	Weight of evidence	Single treatment
Eye	Irritating; category 2					Literature study	
Skin	Irritating				Human	Experimental value	
Skin	Irritating; category 2					Literature study	
Inhalation	Irritating				Human	Experimental value	

ethylene dimethacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Other	72 h	7 days	Rabbit	Experimental value	
Skin	Not irritating	Draize Skin Test	24 h	24; 72 hours	Rabbit	Weight of evidence	
Inhalation	Irritating					Literature study	

hydroxypropyl methacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating			1; 2; 3; 4; 5; 7 days	Rabbit	Experimental value	
Eye	Irritating	Draize Skin Test			Rabbit	Literature study	
Skin	Not irritating		24 h	24; 72 hours	Rabbit	Experimental value	

1,1'-(p-tolylimino)dipropan-2-ol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405	24 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value	

Classification is based on the relevant ingredients

Conclusion

Causes serious eye irritation.

Not classified as irritating to the skin

Respiratory or skin sensitisation

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing				Mouse (female)	Experimental value	
Skin	Sensitizing	Human observation			Human (male/female)		

ethylene dimethacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406			Mouse (female)	Experimental value	
Dermal	Sensitizing	Other			Human	Experimental value	

hydroxypropyl methacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	Patch test on human skin			Human (male/female)	Literature study	
Skin	Not sensitizing	Equivalent to OECD 429			Mouse (female)	Experimental value	

1,1'-(p-tolylimino)dipropan-2-ol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (female)	Experimental value	

Classification is based on the relevant ingredients

Conclusion

May cause sensitisation by skin contact.

Specific target organ toxicity

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	100 mg/kg bw/day	All major organs	No effect	5.5 - 7 weeks (daily)	Rat (male/female)	Experimental value
Oral (stomach tube)	NOAEL	OECD 422	300 mg/kg bw/day	General	No effect	5.5 - 7 weeks (daily)	Rat (male/female)	Experimental value
Inhalation	NOAEL		0.5 mg/l		No effect	3 weeks (6h/day, 5 days/week)	Rat (male/female)	Not determined

vinyltoluene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 408	< 50 mg/kg bw/day	Lungs	No effect	13 week(s)	Rat (male/female)	Experimental value
Inhalation (gases)	NOEL	Subchronic toxicity test	60 mg/m³ air		No effect	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

ethylene dimethacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	OECD 422	100 mg/kg bw/day	General	Reduced body weight and food consumption; CNS effects; signs of necropsy	49 day(s)	Rat (male/female)	Experimental value
Skin	NOAEL	Other	100 mg/kg bw/day	Skin	irritation	78 weeks (daily, 5 days/week)	Mouse (male)	Read-across

hydroxypropyl methacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	OECD 422	300 mg/kg bw		No effect	49 day(s)	Rat (male/female)	Experimental value

1,1'-(p-tolylimino)dipropan-2-ol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL systemic effects	OECD 422	40 mg/kg bw/day		No adverse systemic effects		Rat (male)	Experimental value
Oral (stomach tube)	NOAEL systemic effects	OECD 422	20 mg/kg bw/day		No adverse systemic effects		Rat (female)	Experimental value

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 472	Escherichia coli	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster lung fibroblasts	No effect	Experimental value

vinyltoluene

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

ethylene dimethacrylate

Result	Method	Test substrate	Effect	Value determination
Negative	Other	Mouse fibroblasts		Experimental value

hydroxypropyl methacrylate

Result	Method	Test substrate	Effect	Value determination
Positive	Other	Chinese hamster lung fibroblasts		Experimental value
Negative	OECD 471	Bacteria (S.typhimurium)		Experimental value

1,1'-(p-tolylimino)dipropan-2-ol

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster lung fibroblasts	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster lung fibroblasts	No effect	Experimental value

Mutagenicity (in vivo)

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	SMART		Drosophila melanogaster (male/female)		Experimental value
Negative	OECD 474	2 day(s)	Rat (male)		Experimental value

vinyltoluene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 475	5 day(s)	Rat (male)	Bone marrow	Experimental value

ethylene dimethacrylate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474		Mouse (male/female)		Experimental value
Negative	Other		Rat (male)		Experimental value

hydroxypropyl methacrylate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Other		Drosophila melanogaster		Experimental value
Negative	OECD 474		Mouse (male/female)		Experimental value

Carcinogenicity

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation	NOAEC	Equivalent to OECD 451	≥ 2.05 mg/l air	102 weeks (6h/day, 5 days/week)	Rat (female)	Experimental value		No carcinogenic effect
Inhalation	NOAEC	Equivalent to OECD 451	≥ 4.1 mg/l air	102 weeks (6h/day, 5 days/week)	Rat (male)	Experimental value		No carcinogenic effect
Inhalation	NOAEC systemic effects	Equivalent to OECD 451	≥ 2.05 mg/l air	102 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value		No effect
Inhalation	LOAEC local effects	Equivalent to OECD 451	1.03 mg/l air	102 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value	Nose	Erosion/degeneration nasal epithelia
Inhalation	NOAEC	Equivalent to OECD 451	≥ 4.1 mg/l air	102 weeks (6h/day, 5 days/week)	Mouse (male/female)	Experimental value		No carcinogenic effect
Inhalation	NOAEC systemic effects	Equivalent to OECD 451	≥ 4.1 mg/l air	102 weeks (6h/day, 5 days/week)	Mouse (male/female)	Experimental value		No effect
Inhalation	LOAEC local effects	Equivalent to OECD 451	2.05 mg/l air	102 weeks (6h/day, 5 days/week)	Mouse (male/female)	Experimental value	Nose	Erosion/degeneration nasal epithelia
Oral (drinking water)	NOAEL		≥ 193.8 mg/kg bw/day	104 weeks (daily)	Rat (female)	Experimental value		No carcinogenic effect
Oral (drinking water)	NOAEL		≥ 90.3 mg/kg bw/day	104 weeks (daily)	Rat (male)	Experimental value		No carcinogenic effect

vinyltoluene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation (vapours)	NOAEL	Equivalent to OECD 451	≥ 25 ppm	104 weeks (6h/day, 5 days/week)	Mouse (male/female)	Experimental value		No carcinogenic effect

hydroxypropyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	≥ 500 ppm	102 weeks (6h/day, 5 days/week)	Rat (female)	Experimental value		
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	≥ 1000 ppm	102 weeks (6h/day, 5 days/week)	Rat (male)	Experimental value		
Oral (drinking water)	NOAEL	Equivalent to OECD 451	≥ 90.3 mg/kg bw/day	104 week(s)	Rat (male)	Experimental value		
Oral (drinking water)	NOAEL	Equivalent to OECD 451	≥ 193.8 mg/kg bw/day	104 week(s)	Rat (female)	Experimental value		

Reproductive toxicity

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL (F1)	OECD 416	400 mg/kg bw/day		Rat (male/female)	No effect		Experimental value
	NOAEL (F2)	OECD 416	400 mg/kg bw/day		Rat (male/female)	No effect		Experimental value
	NOAEL	OECD 414	450 mg/kg bw/day	23 day(s)	Rabbit (male/female)	No effect		Experimental value
	NOAEC	OECD 414	≥ 8.3 mg/l air	10 days (6h/day)	Rat (male/female)	No effect	Foetus	Experimental value
	NOAEL	OECD 422	≥ 1000 mg/kg bw/day	5.5 - 7 weeks (daily)	Rat (male/female)	No effect		Experimental value
Maternal toxicity	NOAEL	OECD 414	50 mg/kg bw/day	23 day(s)	Rabbit (female)	No effect		Experimental value
	LOEC	OECD 414	0.41 mg/l air	10 days (6h/day)	Rat (female)	Body weight reduction	General	Experimental value
	NOAEL	OECD 422	≥ 1000 mg/kg bw/day	5.5 - 7 weeks (daily)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEL (P/F1)	Equivalent to OECD 422	≥ 1000 mg/kg bw/day	5.5 - 7 weeks (daily)	Rat (male/female)	No effect		Experimental value
	NOAEL (P/F1)	OECD 416	400 mg/kg bw/day		Rat (male/female)	No effect		Experimental value

vinyltoluene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	600 mg/kg bw/day	14 day(s)	Rat	No effect	Foetus	Experimental value
Effects on fertility	NOAEL	Equivalent to OECD 416	200 mg/kg bw/day		Rat (male/female)	No effect		Experimental value
	LOAEL	Equivalent to OECD 416	500 mg/kg bw/day		Rat (male/female)	Body weight reduction, mortality, reproductive performance		Experimental value

ethylene dimethacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL (F1)	OECD 422	≥ 1000 mg/kg bw/day	49 day(s)	Rat (male/female)	No effect		Read-across
	NOAEL	OECD 414	500 mg/kg bw/day	15 day(s)	Rat	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 422	> -1000 mg/kg bw/day	49 day(s)	Rat (male/female)	Change in the haemogramme/ blood composition	Blood	Read-across

hydroxypropyl methacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 414	450 mg/kg bw/day	23 day(s)	Rabbit	No effect		Experimental value
	NOAEC	OECD 414	≥ 8.3 mg/l air	10 day(s)	Rat	No effect		Experimental value
Effects on fertility	NOAEL (P/F1)	OECD 416	400 mg/kg bw/day		Rat (male/female)	No effect		Experimental value
	NOAEL (F1)	Equivalent to OECD 422	1000 mg/kg bw/day	49 days (continuous)	Rat (male/female)	No effect		Experimental value

1,1'-(p-tolylimino)dipropan-2-ol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Effects on fertility	NOAEL (P)	OECD 422	40 mg/kg bw/day		Rat (male)	No effect	Male reproductive organ	Experimental value
	NOAEL (P)	OECD 422	20 mg/kg bw/day		Rat (female)	No effect	Female reproductive organ	

Judgement is based on the relevant ingredients

Conclusion CMR

Not classified for carcinogenicity

Not classified for mutagenic or genotoxic toxicity

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
LD50		1250 mg/kg bw				Rat	Not determined
LD50		2970 ml/kg bw				Rat (female)	Not determined

Chronic effects from short and long-term exposure

Chemical Anchoring CA1400, Component A

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Anchoring CA1400, Component A

No (test)data on the mixture available

2-hydroxyethyl methacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		227 mg/l	96 h	Pimephales promelas			Measured concentration
	LC50	OECD 203	> 100 mg/l	96 h	Oryzias latipes	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity invertebrates	NOEC	OECD 202	171 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
	EC50	OECD 202	380 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	836 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	EbC50	OECD 201	345 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic invertebrates	NOEC	OECD 211	24.1 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
	LOEC	OECD 211	49.6 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

vinyltoluene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	5.2 mg/l	96 h	Pimephales promelas	Semi-static system	Fresh water	Experimental value
Acute toxicity invertebrates	LC50	OECD 202	1.3 mg/l	18 h	Daphnia magna	Static system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	EC50	OECD 201	2.6 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value
Long-term toxicity fish	NOEC		1.636 mg/l	30 day(s)	Pisces		Salt water	QSAR

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms	LC50		145.605 mg/kg soil dw	14 day(s)	Lumbricus sp.	QSAR

ethylene dimethacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	15.95 mg/l	96 h	Danio rerio	Static system		Experimental value; GLP
Acute toxicity invertebrates	EC50	OECD 202	44.9 mg/l	48 h	Daphnia magna	Static system		Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	19 mg/l	96 h	Pseudokirchneriella subcapitata	Static system		Experimental value; GLP
Long-term toxicity aquatic invertebrates	NOEC	OECD 211	5.05 mg/l	21 day(s)	Daphnia magna	Semi-static system		Experimental value; GLP
Toxicity aquatic micro-organisms	EC50	ISO 8192	570 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; GLP

hydroxypropyl methacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	DIN 38412-15	493 mg/l	48 h	Leuciscus idus	Static system	Fresh water	Experimental value; GLP
Acute toxicity invertebrates	EC50	OECD 202	> 143 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	> 97.2 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 201	> 97.2 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic invertebrates	NOEC	OECD 211	45.2 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

1,1'-(p-tolylimino)dipropan-2-ol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Other	17 mg/l	96 h	Danio rerio	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity invertebrates	EC50	OECD 202	28.8 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	245 mg/l	72 h	Desmodesmus subspicatus	Static system	Salt water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC10	OECD 209	> 1995 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value

Classification of the mixture is based on the relevant ingredients

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

2-hydroxyethyl methacrylate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	98 %	28 day(s)	Experimental value
OECD 301C: Modified MITI Test (I)	92 % - 100 %; GLP	14 day(s)	Experimental value

vinyltoluene

Biodegradation water

Method	Value	Duration	Value determination
Other	32 %	20 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	0.34 day(s) - 0.546 day(s)		QSAR

ethylene dimethacrylate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	69 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	9.644 h	0.5E6 /cm³	Calculated value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
Hydrowin v2.00	1.6 year(s) - 15.7 year(s)	Primary degradation	Calculated value

hydroxypropyl methacrylate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	94.2 %	28 day(s)	Experimental value
OECD 301C: Modified MITI Test (I)	81 %	28 day(s)	Experimental value

1,1'-(p-tolylimino)dipropan-2-ol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	39.1 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	1.762 h	500000 /cm³	QSAR

Conclusion

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

Chemical Anchoring CA1400, Component A

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

2-hydroxyethyl methacrylate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		1.3 - 1.5		Pisces	

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.55 - 0.49		

vinyltoluene

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	Other	120 - 170	30 day(s)	Lepomis macrochirus	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		3.26 - 3.36	25 °C	Experimental value

ethylene dimethacrylate

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.00	2.96			QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 102		2.4		Experimental value

hydroxypropyl methacrylate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		≤ 100		Pisces	
		3.2		Pisces	

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 102		0.97		

1,1'-(p-tolylimino)dipropan-2-ol

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		2.1	24 °C	Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

2-hydroxyethyl methacrylate

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.000000005 atm m³/mol		25 °C		Calculated value

vinyltoluene

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
3.05E-3 atm m³/mol	SRC HENRYWIN v3.20	25 °C		QSAR

ethylene dimethacrylate

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.000000378 atm m³/mol	SRC HENRYWIN v3.20	25 °C		Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	42.7 %		0.0378 %	43.8 %	13.5 %	Calculated value

hydroxypropyl methacrylate

(log) Koc

Parameter	Method	Value	Value determination
Koc		80	Estimated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
2.33E-008 atm m³/mol		25 °C		Estimated value
0.000946 Pa.m³/mol	SRC HENRYWIN v3.20	25 °C		Estimated value

1,1'-(p-tolylimino)dipropan-2-ol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.9185	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.0000398 Pa.m³/mol	SRC HENRYWIN v3.20	25 °C		Calculated value

Conclusion

No (test)data on mobility of the components available

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

Chemical Anchoring CA1400, Component A

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

2-hydroxyethyl methacrylate

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

vinyltoluene

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

ethylene dimethacrylate

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

hydroxypropyl methacrylate

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

1,1'-(p-tolylimino)dipropan-2-ol

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
08 04 10 (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants other than those mentioned in 08 04 09). Depending on branch of industry and production process, also other waste codes may be applicable. Can be considered as non hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 02 (plastic packaging).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number	
Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Rail (RID)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number	
Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Inland waterways (ADN)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Sea (IMDG/IMSBC)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

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

Annex II of MARPOL 73/78	

Air (ICAO-TI/IATA-DGR)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
7 % - 30 %	

Plant protection products - listed ingredient

Contains component(s) included in implementing Regulation (EU) No 540/2011

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· 2-hydroxyethyl methacrylate · vinyltoluene · hydroxypropyl methacrylate	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects,2. Articles not complying with paragraph 1 shall not be placed on the market.3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304,4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”;

		c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
· vinyltoluene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — "whoopee" cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: "For professional users only".3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

National legislation The Netherlands

Chemical Anchoring CA1400, Component A

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 03
Waterbezwaarlijkheid	11

National legislation Germany

Chemical Anchoring CA1400, Component A

WGK	2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

2-hydroxyethyl methacrylate

TA-Luft	5.2.5

vinyltoluene

MAK 8-Stunden-Mittelwert ppm	Methylstyrol (alle Isomeren); 100 ppm
MAK 8-Stunden-Mittelwert mg/m³	Methylstyrol (alle Isomeren); 490 mg/m³

ethylene dimethacrylate

TA-Luft	5.2.5

hydroxypropyl methacrylate

TA-Luft	5.2.5

1,1'-(p-tolylimino)dipropan-2-ol

TA-Luft	5.2.5; I

National legislation France

Chemical Anchoring CA1400, Component A

No data available

National legislation Belgium

Chemical Anchoring CA1400, Component A

No data available

Other relevant data

Chemical Anchoring CA1400, Component A

No data available

vinyltoluene

IARC - classification	3; Vinyl toluene
TLV - Carcinogen	Vinyl toluene; A4

15.2. Chemical safety assessment

No chemical safety assessment is required.

SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

H226 Flammable liquid and vapour.

H300 Fatal if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.
(*) = INTERNAL CLASSIFICATION BY BIG
PBT-substances = persistent, bioaccumulative and toxic substances
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Specific concentration limits CLP

ethylene dimethacrylate	C ≥ 10 %	STOT SE 3; H335	CLP Annex VI (ATP 0)

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

Chemical Anchoring CA1400, Component B

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

1.1. Product identifier

Product name : Chemical Anchoring CA1400, Component B
Registration number REACH : Not applicable
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Hardener

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
🖷 +32 14 42 65 14
msds@soudal.com

Manufacturer of the product

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
🖷 +32 14 42 65 14
msds@soudal.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Eye Irrit.	category 2	H319: Causes serious eye irritation.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.

2.2. Label elements

Contains: dibenzoyl peroxide.

Signal word Warning

H-statements

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

P-statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280	Wear protective gloves and eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of water and soap.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

2.3. Other hazards

Combustible

Warning! Product may cause floors to be slippery

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
dibenzoyl peroxide 01-2119511472-50	94-36-0 202-327-6	10%<C<20%	Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400	(1)(2)(9)	Constituent
2-ethylhexyl benzoate	5444-75-7 226-641-8	1%<C<5%	Aquatic Chronic 4; H413	(1)(10)	Constituent
glycerol	56-81-5 200-289-5	1%≤C<20%		(2)	Constituent

(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(9) M-factor, see heading 16
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact:

Irritation of the eye tissue.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Water spray. ABC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium. Foam.

5.2. Special hazards arising from the substance or mixture

Upon combustion: CO and CO2 are formed.

5.3. Advice for firefighters

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Safety glasses. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Safety glasses. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain leaking substance. Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up

Spill must not return in its original container. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed. Remove contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: 5 - 25 °C. Store in a cool area. Store in a dark area. Keep out of direct sunlight. Store in a dry area. Keep container in a well-ventilated place. Keep only in the original container. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources, ignition sources, Do not store with other substances, oxidizing agents, reducing agents, (strong) acids, (strong) bases, alcohols, amines, combustible materials.

7.2.3 Suitable packaging material:

Synthetic material.

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

Dibenzoylperoxide	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	5 mg/m³
Glycerol (nevel)	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	2.6 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	10 mg/m³

Belgium

Glycérine (brouillard)	Time-weighted average exposure limit 8 h	10 mg/m³
Peroxyde de dibenzoyle	Time-weighted average exposure limit 8 h	5 mg/m³

USA (TLV-ACGIH)

Benzoyl peroxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	5 mg/m³

Germany

Dibenzoylperoxid	Time-weighted average exposure limit 8 h (TRGS 900)	5 mg/m³

France

Glycérine (aérosols de)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³
Peroxyde de dibenzoyle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	5 mg/m³

UK

Dibenzoyl peroxide	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	5 mg/m³
Glycerol, mist	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

Benzoyl Peroxide	**NIOSH**	**5009**
Glycerin Mist (Particulates)	**NIOSH**	**600**

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL/DMEL - Workers

dibenzoyl peroxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	6.6 mg/kg bw/day	
	Long-term systemic effects inhalation	11.75 mg/m³	

glycerol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	56 mg/m³	

DNEL/DMEL - General population

dibenzoyl peroxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	3.3 mg/kg bw/day	
	Long-term systemic effects inhalation	2.9 mg/m³	
	Long-term systemic effects oral	1.65 mg/kg bw/day	

glycerol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	33 mg/m³	
	Long-term systemic effects oral	229 mg/kg bw/day	

PNEC

dibenzoyl peroxide

Compartments	Value	Remark
Fresh water	0.602 µg/l	
Marine water	0.0602 µg/l	
Aqua (intermittent releases)	0.602 µg/l	
STP	0.35 mg/l	
Fresh water sediment	0.338 mg/kg sediment dw	
Marine water sediment	0.0338 mg/kg sediment dw	
Soil	0.0758 mg/kg soil dw	
Oral	6.67 mg/kg food	

glycerol

Compartments	Value	Remark
Fresh water	0.885 mg/l	
Marine water	0.0855 mg/l	
Aqua (intermittent releases)	8.85 mg/l	
STP	1000 mg/l	
Fresh water sediment	3.3 mg/kg sediment dw	
Marine water sediment	0.33 mg/kg sediment dw	
Soil	0.141 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit.

b) Hand protection:

Gloves.

Materials	Breakthrough time	Thickness
nitrile rubber	<30 seconds	>0.1 mm

- materials (good resistance)

Nitrile rubber, butyl rubber.

c) Eye protection:

Safety glasses.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Paste
Odour	Characteristic odour
Odour threshold	No data available
Colour	Black
Particle size	No data available
Explosion limits	No data available
Flammability	Combustible
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	116 °C
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	No data available
Solubility	water ; insoluble
Relative density	No data available
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2. Other information

Absolute density	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard. No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Violent to explosive reaction with many compounds e.g.: with combustible materials, with (strong) reducers, with (some) acids/bases, with alcohols and with amines. Reacts with (strong) oxidizers.

10.4. Conditions to avoid

Keep away from naked flames/heat.

10.5. Incompatible materials

Do not store with other substances, oxidizing agents, reducing agents, (strong) acids, (strong) bases, alcohols, amines, combustible materials.

10.6. Hazardous decomposition products

Upon combustion: CO and CO2 are formed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5000 mg/kg bw		Rat (male)	Weight of evidence	
Inhalation (dust)	LC0	Equivalent to OECD 403	24.3 mg/m³ air	4 h	Rat (male)	Experimental value	

2-ethylhexyl benzoate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	2500 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	≥ 5000 mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation						Data waiving	

glycerol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	27200 mg/kg		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	56750 mg/kg	4 day(s)	Guinea pig (male/female)	Experimental value	
Inhalation (vapours)	LC50	OECD 403	> 2.75 mg/l	4 h	Rat (male)	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Low acute toxicity by the dermal route

Low acute toxicity by the oral route

Low acute toxicity by the inhalation route

Corrosion/irritation

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Highly irritating	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Expert judgement	
Skin	Not irritating	Equivalent to OECD 404	4 h	24; 72 hours	Rabbit	Experimental value	

2-ethylhexyl benzoate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating	OECD 404	4 h		Rabbit	Experimental value	

glycerol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405	24 h		Rabbit	Experimental value	
Skin	Not irritating	OECD 404	24 h		Rabbit	Experimental value	

Classification is based on the relevant ingredients

Conclusion

Not classified as irritating to the skin

Causes serious eye irritation.

Respiratory or skin sensitisation

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	Equivalent to OECD 429	3 day(s)		Mouse (female)	Experimental value	
	Sensitizing				Human	Literature study	

2-ethylhexyl benzoate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	

glycerol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Human observation			Human	Experimental value	

Classification is based on the relevant ingredients

Conclusion

May cause an allergic skin reaction.

Specific target organ toxicity

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOEL	OECD 422	500 mg/kg bw/day		No effect		Rat (male)	Experimental value
Oral	NOEL	OECD 422	1000 mg/kg bw/day		No effect		Rat (female)	Experimental value

glycerol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	Equivalent to OECD 452	8000 mg/kg bw/day - 10000 mg/kg bw/day		No effect	2 year(s)	Rat (male/female)	Experimental value
Dermal	NOEL	Subchronic toxicity test	5040 mg/kg bw/day		No effect	45 weeks (6h/day, 5 days/week)	Rabbit	Experimental value
Inhalation (aerosol)	NOAEL	Equivalent to OECD 413	167 mg/m³ air	Respiratory tract	No effect	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

Judgement is based on the relevant ingredients

Conclusion

Low sub-chronic toxicity by the oral route

Mutagenicity (in vitro)

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value
Negative	Ames test	Bacteria (S.typhimurium)	No effect	Experimental value

2-ethylhexyl benzoate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value

glycerol

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 482	Rat liver cells	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value

Mutagenicity (in vivo)

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative		8 week(s)	Mouse (male/female)		Experimental value

Carcinogenicity

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Dermal	NOEL	Not further determined	40 mg/animal	2 year(s)	Mouse (male/female)	Weight of evidence		No effect
Oral	NOAEL	Not determined	2800 mg/kg bw/day	120 week(s)	Rat (male/female)	Weight of evidence		No adverse systemic effects
Oral	NOAEL	Not determined	2800 mg/kg bw/day	80 week(s)	Mouse (male/female)	Weight of evidence		No adverse systemic effects

glycerol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Oral		Not further determined		2 year(s)	Rat (male/female)	Experimental value		No carcinogenic effect

Reproductive toxicity

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL (F1)	OECD 422	500 mg/kg bw/day		Rat (male/female)	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 422	1000 mg/kg bw/day		Rat (male/female)	No effect		Experimental value

glycerol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	1310 mg/kg bw/day	6-15 days (gestation, daily)	Rat	No effect	Foetus	Experimental value
Maternal toxicity	NOAEL	Equivalent to OECD 414	1310 mg/kg bw/day	6-15 days (gestation, daily)	Rat (female)	No effect		Experimental value
Effects on fertility	Dose level		2000 mg/kg bw/day	8-12 weeks (daily)	Rat (male/female)	No effect		Experimental value

Judgement is based on the relevant ingredients

Conclusion CMR

Not classified for carcinogenicity

Not classified for mutagenic or genotoxic toxicity

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

Chronic effects from short and long-term exposure

Chemical Anchoring CA1400, Component B

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Anchoring CA1400, Component B

No (test)data on the mixture available

dibenzoyl peroxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	0.0602 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity invertebrates	EC50	OECD 202	0.11 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	0.0711 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC50	OECD 209	35 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value; GLP

2-ethylhexyl benzoate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 0.66 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	EC50	OECD 201	> 0.035 mg/l	96 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value
Acute toxicity other aquatic organisms	EC50	OECD 202	> 0.125 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	EC50	OECD 209	> 100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value

glycerol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		54000 mg/l	96 h	Salmo gairdneri	Static system	Fresh water	Literature study; Lethal
Acute toxicity invertebrates	EC50		> 10000 mg/l	24 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EC0		> 10000 mg/l	8 day(s)	Scenedesmus quadricauda	Static system	Fresh water	Experimental value; Turbid water

Judgement of the mixture is based on the relevant ingredients

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

dibenzoyl peroxide

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	84 %	21 day(s)	Experimental value
OECD 301D: Closed Bottle Test	68 %; GLP	28 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
OECD 111: Hydrolysis as a function of pH	< 1 day(s); GLP	Primary degradation	Experimental value

2-ethylhexyl benzoate

Biodegradation water

Method	Value	Duration	Value determination
OECD 310: Ready biodegradability - CO2 in sealed vessels	76.5 %; Activated sludge	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	33.376 h	0.5E06 /cm³	QSAR

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
EPI Suite	10.671 year(s); pH = 7		QSAR

glycerol

Biodegradation water

Method	Value	Duration	Value determination
	94 %	24 h	Experimental value

Conclusion

Contains readily biodegradable component(s)

12.3. Bioaccumulative potential

Chemical Anchoring CA1400, Component B

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

dibenzoyl peroxide

Log Kow

Method	Remark	Value	Temperature	Value determination
		3.71		QSAR
OECD 117		3.2	22 °C	Experimental value

2-ethylhexyl benzoate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.00	184 l/kg		Pisces	QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117	No data available	6.21	30 °C	Experimental value

glycerol

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		-1.75		Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

dibenzoyl peroxide

(log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 121	3.8	Experimental value

2-ethylhexyl benzoate

(log) Koc

Parameter	Method	Value	Value determination
log Koc	Other	4.2944	QSAR

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
25.6 Pa.m³/mol	SRC HENRYWIN v3.20	25 °C		QSAR

glycerol

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.000000006 atm m³/mol	SRC HENRYWIN v3.20	25 °C		Calculated value

Conclusion

Contains component(s) that adsorb(s) into the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

Chemical Anchoring CA1400, Component B

Global warming potential (GWP)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

dibenzoyl peroxide

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

2-ethylhexyl benzoate

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

glycerol

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other dangerous substances). Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Remove to an authorized incinerator with energy recovery. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number	
Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Rail (RID)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number	
Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Inland waterways (ADN)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	
Classification code	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

Sea (IMDG/IMSBC)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	

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

Annex II of MARPOL 73/78	

Air (ICAO-TI/IATA-DGR)

14.1. UN number

Transport	Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class	

14.4. Packing group

Packing group	
Labels	

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
0 %	

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· 2-ethylhexyl benzoate	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects,2. Articles not complying with paragraph 1 shall not be placed on the market.3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304,4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on

		alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'

National legislation The Netherlands

Chemical Anchoring CA1400, Component B

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	9

National legislation Germany

Chemical Anchoring CA1400, Component B

WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

dibenzoyl peroxide

MAK 8-Stunden-Mittelwert mg/m³	Dibenzoylperoxid; 5 mg/m³; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
TA-Luft	5.2.5; I
	5.2.5

2-ethylhexyl benzoate

TA-Luft	5.2.5; I

glycerol

Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert mg/m³	Glycerin; 50 mg/m³; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
TA-Luft	5.2.5

National legislation France

Chemical Anchoring CA1400, Component B

No data available

National legislation Belgium

Chemical Anchoring CA1400, Component B

No data available

Other relevant data

Chemical Anchoring CA1400, Component B

No data available

dibenzoyl peroxide

IARC - classification	3; Benzoyl peroxide
TLV - Carcinogen	Benzoyl peroxide; A4

15.2. Chemical safety assessment

No chemical safety assessment is required.

SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

H241 Heating may cause a fire or explosion.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H413 May cause long lasting harmful effects to aquatic life.
(*) = INTERNAL CLASSIFICATION BY BIG
PBT-substances = persistent, bioaccumulative and toxic substances
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

M-factor

dibenzoyl peroxide	10	Acute	BIG

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.