

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**1670 MA structural adhesive - 1668 resin**

Revision: 28.01.2026

Product code: 1668

Page 1 of 19

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

#### 1.1. Product identifier

1670 MA structural adhesive - 1668 resin

##### Further trade names

Product 1670: 1668 resin + 1664 Hardener

Product group:

UFI: N7M4-E02D-S00V-6KWK

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

##### Use of the substance/mixture

Adhesives and sealants

##### Uses advised against

No information available.

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

Company name: Kisling AG  
Street: Motorenstrasse 102  
Place: CH-8620 Wetzikon  
Telephone: +41 58 272 0 272  
E-mail: customerservice@kisling.com  
Contact person: Product Compliance Telephone: +49 7940 5096 143  
E-mail (Contact person): compliance@kisling.com  
Internet: www.kisling.com

##### Supplier

Company name: Kisling (Deutschland) GmbH  
Street: Salzstraße 15  
Place: D-74676 Niedernhall  
Telephone: +49 7940 50961 61  
E-mail: customerservice@kisling.com  
Contact person: Product Compliance Telephone: +49 7940 5096 143  
E-mail Contact person: compliance@kisling.com  
Internet: www.kisling.com

#### 1.4. Emergency telephone number:

24 hr. emergency phone number +1 872 5888271 (KAR)  
Medicines & Poisons Info Office +356 2545 6508

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No 1272/2008

Flam. Sol. 1; H228  
Skin Irrit. 2; H315  
Eye Dam. 1; H318  
Skin Sens. 1; H317  
STOT SE 3; H335  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

##### Regulation (EC) No 1272/2008

##### Hazard components for labelling

methyl methacrylate

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 2 of 19

methacrylic acid  
 Propylidynetrimethanol, ethoxylated, esters with acrylic acid  
 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide  
 2-hydroxyethyl methacrylate  
 Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol  
 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-  
 Cobalt bis(2-ethylhexanoate)

**Signal word:** Danger

**Pictograms:**



#### Hazard statements

H228 Flammable solid.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.  
 H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P280 Wear protective gloves and eye protection/face protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor.

#### Labelling of packages where the contents do not exceed 125 ml

**Signal word:** Danger

**Pictograms:**



#### Hazard statements

H317-H318-H412

#### Precautionary statements

P280-P305+P351+P338-P310

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixtures

#### Relevant ingredients

CAS No	Chemical name	Quantity
	EC No	Index No
	Classification (Regulation (EC) No 1272/2008)	REACH No

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 3 of 19

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
80-62-6	methyl methacrylate			50 - < 100 %
	201-297-1	607-035-00-6	01-2119452498-28	
	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335			
79-41-4	methacrylic acid			3 - < 5 %
	201-204-4	607-088-00-5	01-2119463884-26	
	Acute Tox. 3, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, STOT SE 3; H311 H332 H302 H314 H318 H335			
28961-43-5	Propylidynetrimethanol, ethoxylated, esters with acrylic acid			1 - < 5 %
	500-066-5		01-2119489900-30	
	Eye Irrit. 2, Skin Sens. 1B, Aquatic Chronic 2; H319 H317 H411			
1187441-1 0-6	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide			1 - < 5 %
	810-703-1		01-2120140608-57	
	Eye Dam. 1, Skin Sens. 1; H318 H317			
868-77-9	2-hydroxyethyl methacrylate			0.1 - < 1 %
	212-782-2	607-124-00-X	01-2119490169-29	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317			
	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-			0.1 - < 1 %
	911-490-9		01-2119979579-10	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H315 H318 H317 H412			
136-52-7	Cobalt bis(2-ethylhexanoate)			0.1 - < 1 %
	205-250-6		01-2119524678-29	
	Repr. 1B, Eye Irrit. 2, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 3; H360FD H319 H317 H400 H412			
91-66-7	N,N-diethylaniline			0.1 - < 1 %
	202-088-8	612-054-00-8	01-2119943758-22	
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT RE 2, Aquatic Chronic 2; H331 H311 H301 H373 H411			
36443-68-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]			< 0.1 %
	253-039-2		01-2119956160-44	
	Aquatic Chronic 1; H410			

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

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
80-62-6	201-297-1	methyl methacrylate	50 - < 100 %
		inhalation: LC50 = 29,8 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = ca. 7900 mg/kg	
79-41-4	201-204-4	methacrylic acid	3 - < 5 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 500 mg/kg; oral: LD50 = 1320 mg/kg Eye Dam. 1; H318: >= 3 - 100 Eye Irrit. 2; H319: >= - < 3 STOT SE 3; H335: >= 1 - 100	
28961-43-5	500-066-5	Propylidynetrimethanol, ethoxylated, esters with acrylic acid	1 - < 5 %
		dermal: LD50 = > 13200 mg/kg; oral: LD50 = > 2000 mg/kg	

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 4 of 19

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1187441-1 0-6	810-703-1	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide	1 - < 5 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	
868-77-9	212-782-2	2-hydroxyethyl methacrylate	0.1 - < 1 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5564 mg/kg	
	911-490-9	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-	0.1 - < 1 %
		oral: ATE = 500 mg/kg	
136-52-7	205-250-6	Cobalt bis(2-ethylhexanoate)	0.1 - < 1 %
		dermal: LD50 = 5690 mg/kg; oral: LD50 = 3129 mg/kg	
91-66-7	202-088-8	N,N-diethylaniline	0.1 - < 1 %
		inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = > 400 mg/kg; oral: ATE = 100 mg/kg	
36443-68-2	253-039-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]	< 0.1 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 7000 mg/kg Aquatic Chronic 1; H410: M=10	

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

No special measures are necessary.

###### After inhalation

Provide fresh air.

###### After contact with skin

Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

###### After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. IF SWALLOWED: Immediately call a doctor.

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

Irritant — skin irritation and eye damage

May cause respiratory irritation. Dyspnoea.

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

Treat symptomatically.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder

###### Unsuitable extinguishing media

Full water jet.

##### 5.2. Special hazards arising from the substance or mixture

Hazardous combustion products, Flammable vapours can accumulate in steam space of closed systems.

##### 5.3. Advice for firefighters

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

###### Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray jet to protect personnel and to cool endangered containers. Evacuate area.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**1670 MA structural adhesive - 1668 resin**

Revision: 28.01.2026

Product code: 1668

Page 5 of 19

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### General advice

Use personal protection equipment. See protective measures under point 7 and 8.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### For containment

Prevent spread over a wide area (e.g. by containment or oil barriers). Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

##### For cleaning up

Soak up inert absorbent and dispose as waste requiring special attention.

#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Use only in well-ventilated areas. Keep away from sources of ignition - No smoking.

Avoid contact with skin, eyes and clothes. People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this mixture.

##### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

##### Further information on handling

Keep only in the original container in a cool, well-ventilated place.

Never use pressure to empty container. Do not allow to enter into surface water or drains.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed and in a well-ventilated place.

##### Hints on joint storage

No special measures are necessary.

##### Further information on storage conditions

No special measures are necessary.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limit values

CAS No	Name of agent	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
80-62-6	Methyl methacrylate	50	-		TWA (8 h)	
		100	-		STEL (15 min)	

##### DNEL/DMEL values

CAS No	Name of agent	Exposure route	Effect	Value
80-62-6	methyl methacrylate			
	Worker DNEL, long-term	inhalation	systemic	348,4 mg/m <sup>3</sup>

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 6 of 19

#### DNEL/DMEL values

CAS No	Name of agent	Exposure route	Effect	Value
	DNEL type			
	Worker DNEL, long-term	inhalation	local	208 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	local	416 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	13,67 mg/kg bw/day
	Worker DNEL, long-term	dermal	local	1,5 mg/cm <sup>2</sup>
	Worker DNEL, acute	dermal	local	1,5 mg/cm <sup>2</sup>
	Consumer DNEL, long-term	inhalation	systemic	74,3 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	104 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	208 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	8,2 mg/kg bw/day
	Consumer DNEL, long-term	dermal	local	1,5 mg/cm <sup>2</sup>
	Consumer DNEL, acute	dermal	local	1,5 mg/cm <sup>2</sup>
	Consumer DNEL, long-term	oral	systemic	8,2 mg/kg bw/day
79-41-4	methacrylic acid			
	Worker DNEL, long-term	inhalation	systemic	39.3 mg/m <sup>3</sup>
	Worker DNEL, long-term	inhalation	local	44 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	4.25 mg/kg bw/day
	Worker DNEL, long-term	dermal	local	0.38 mg/cm <sup>2</sup>
	Consumer DNEL, long-term	inhalation	systemic	11.7 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	8.8 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	5.35 mg/kg bw/day
	Consumer DNEL, long-term	dermal	local	0.23 mg/cm <sup>2</sup>
	Consumer DNEL, long-term	oral	systemic	5.35 mg/kg bw/day
28961-43-5	Propylidynetrimethanol, ethoxylated, esters with acrylic acid			
	Worker DNEL, long-term	inhalation	systemic	37 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	10.5 mg/kg bw/day
1187441-10-6	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide			
	Worker DNEL, long-term	inhalation	systemic	7.05 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	1 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	3.53 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	0.5 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0.5 mg/kg bw/day
868-77-9	2-hydroxyethyl methacrylate			
	Worker DNEL, long-term	inhalation	systemic	4.9 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	1.39 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	1.45 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	0.83 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0.83 mg/kg bw/day
136-52-7	Cobalt bis(2-ethylhexanoate)			
	Consumer DNEL, long-term	oral	systemic	0.175 mg/kg bw/day
91-66-7	N,N-diethylaniline			
	Worker DNEL, long-term	dermal	systemic	7 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0,0167 mg/kg bw/day

#### PNEC values

CAS No	Name of agent	Value
	Environmental compartment	

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 7 of 19

#### PNEC values

CAS No	Name of agent	Value
Environmental compartment		
80-62-6	methyl methacrylate	
Freshwater		0,94 mg/l
Freshwater (intermittent releases)		0,69 mg/l
Marine water		0,094 mg/l
Freshwater sediment		10,2 mg/kg
Marine sediment		1,02 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		1,48 mg/kg
79-41-4	methacrylic acid	
Freshwater		0.82 mg/l
Freshwater (intermittent releases)		0.45 mg/l
Marine water		0.082 mg/l
Freshwater sediment		3.09 mg/kg
Marine sediment		0.309 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0.137 mg/kg
28961-43-5	Propylidynetrimehanol, ethoxylated, esters with acrylic acid	
Freshwater		0.002 mg/l
Freshwater (intermittent releases)		0.019 mg/l
Marine water		0 mg/l
Freshwater sediment		0.038 mg/kg
Marine sediment		0.004 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0.006 mg/kg
1187441-10-6	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide	
Freshwater		0.165 mg/l
Freshwater (intermittent releases)		1.65 mg/l
Marine water		0.017 mg/l
Freshwater sediment		2.8 mg/kg
Marine sediment		0.28 mg/kg
Micro-organisms in sewage treatment plants (STP)		0.4 mg/l
Soil		0.46 mg/kg
868-77-9	2-hydroxyethyl methacrylate	
Freshwater		0.482 mg/l
Freshwater (intermittent releases)		1 mg/l
Marine water		0.048 mg/l
Freshwater sediment		3.79 mg/kg
Marine sediment		3.79 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0.476 mg/kg
136-52-7	Cobalt bis(2-ethylhexanoate)	
Freshwater		0.00106 mg/l
Marine water		0.00236 mg/l
Freshwater sediment		53.8 mg/kg
Marine sediment		69.8 mg/kg
Micro-organisms in sewage treatment plants (STP)		0.37 mg/l
Soil		10.9 mg/kg
91-66-7	N,N-diethylaniline	
Freshwater		0,00936 mg/l

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 8 of 19

#### PNEC values

CAS No	Name of agent	Value
	Environmental compartment	
	Freshwater (intermittent releases)	0,0742 mg/l
	Marine water	0,000936 mg/l
	Freshwater sediment	2,52 mg/kg
	Marine sediment	0,252 mg/kg
	Micro-organisms in sewage treatment plants (STP)	0,018 mg/l
	Soil	0,498 mg/kg
36443-68-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]	
	Freshwater	0.001 mg/l
	Marine water	0 mg/l
	Freshwater sediment	0.195 mg/kg
	Marine sediment	0.019 mg/kg

#### 8.2. Exposure controls



##### Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

##### Individual protection measures, such as personal protective equipment

###### Eye/face protection

Wear eye/face protection.

###### Hand protection

Tested protective gloves must be worn (EN ISO 374)  
Breakthrough times and swelling properties of the material must be taken into consideration.  
NBR (Nitrile rubber) 0,4 mm, Breakthrough time: 480 min

###### Skin protection

Avoid contact with skin, eyes and clothes.

###### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter type: A/P2

###### Environmental exposure controls

Do not allow to enter into surface water or drains.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	Paste, solid
Colour:	dark blue
Odour:	characteristic
Odour threshold:	not determined

	Test method
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	not determined not applicable
Lower explosion limits:	2,1 vol. %
Upper explosion limits:	12,5 vol. %
Flash point:	10 °C
Auto-ignition temperature:	not determined

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 9 of 19

Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility:	practically insoluble
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	1,0 g/cm <sup>3</sup>
Relative density:	not determined
Relative vapour density:	not determined

### 9.2. Other information

#### Information with regard to physical hazard classes

##### Explosive properties

The product is not: Explosive.  
In use may form flammable/explosive vapour-air mixture.

##### Oxidizing properties

not determined

#### Other safety characteristics

Evaporation rate:	not determined
Solid content:	not determined
Viscosity / dynamic (at 25 °C):	500.000 mPa·s

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No known hazardous reactions.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

Thermal decomposition can lead to the escape of irritating gases and vapours.  
Vapours can form explosive mixtures with air.

### 10.4. Conditions to avoid

No information available.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

#### Further information

No data available

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Toxicokinetics, metabolism and distribution

No data available

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### ATEmix calculated

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 10 of 19

ATE (oral) &gt; 5000 mg/kg; ATE (dermal) &gt; 5000 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
80-62-6	methyl methacrylate				
	oral	LD50 ca. 7900 mg/kg	Rat	J. Ind. Hyg. Toxicol. 23: 343-351 (1941)	Study to assess the acute oral toxicity
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1982)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 29,8 mg/l	Rat	J. Dent. Res. 59: 1074 (1980)	Study to assess the acute inhalative tox
79-41-4	methacrylic acid				
	oral	LD50 1320 mg/kg	Rat	Study report (1977)	OECD Guideline 401
	dermal	LD50 500 mg/kg	Rabbit	Pre-supplier/manufacturer	
	inhalation vapour	ATE 11 mg/l			OECD 403
	inhalation dust/mist	ATE 1,5 mg/l			
28961-43-5	Propylidynetrimethanol, ethoxylated, esters with acrylic acid				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1998)	OECD Guideline 401
	dermal	LD50 > 13200 mg/kg	Rabbit	Study report (1984)	An acute dermal toxicity study was performed
1187441-10-6	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2004)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	REACH Registration Dossier	OECD Guideline 423
868-77-9	2-hydroxyethyl methacrylate				
	oral	LD50 5564 mg/kg	Rat	Study report (1977)	other: Appraisal of the safety of chem b
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1982)	The test substance, as received, was held
	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-				
	oral	ATE 500 mg/kg			
136-52-7	Cobalt bis(2-ethylhexanoate)				
	oral	LD50 3129 mg/kg	Rat	Study report (2011)	OECD Guideline 425
	dermal	LD50 5690 mg/kg	Guinea pig	John Wiley & Sons. New York, NY, USA, p.	OECD Guideline 402
91-66-7	N,N-diethylaniline				
	oral	ATE 100 mg/kg			
	dermal	LD50 > 400 mg/kg	Rabbit	ChemIDplus (2018)	other: As mentioned below
	inhalation vapour	ATE 3 mg/l			
	inhalation dust/mist	ATE 0,5 mg/l			
36443-68-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]				
	oral	LD50 > 7000 mg/kg	Rat	Study report (1979)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1992)	OECD Guideline 402

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**1670 MA structural adhesive - 1668 resin**

Revision: 28.01.2026

Product code: 1668

Page 11 of 19

### **Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye damage.

### **Sensitising effects**

May cause an allergic skin reaction. (methyl methacrylate; Propylidynetrimethanol, ethoxylated, esters with acrylic acid; 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide; 2-hydroxyethyl methacrylate; Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-; Cobalt bis(2-ethylhexanoate))

### **Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

### **STOT-single exposure**

May cause respiratory irritation. (methyl methacrylate; methacrylic acid)

### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### **Information on likely routes of exposure**

No data available

### **Specific effects in experiment on an animal**

No data available

### **Additional information on tests**

No data available

### **Practical experience**

May be harmful if swallowed, in contact with skin or if inhaled.

## **11.2. Information on other hazards**

### **Endocrine disrupting properties**

Based on available data, the classification criteria are not met.

### **Other information**

No data available

### **Further information**

No data available

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 12 of 19

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h][d]	Species	Source	Method
80-62-6	methyl methacrylate					
	Acute fish toxicity	LC50 > 79 mg/l	96 h	Oncorhynchus mykiss	REACH Registration Dossier	EPA OTS 797.1400
	Acute algae toxicity	ErC50 > 110 mg/l	72 h	Raphidocelis subcapitata	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 69 mg/l	48 h	Daphnia magna	REACH Registration Dossier	EPA OTS 797.1300
	Fish toxicity	NOEC 9,4 mg/l	35 d	Danio rerio	REACH Registration Dossier	OECD Guideline 210
	Crustacea toxicity	NOEC 37 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
	Acute bacteria toxicity	EC50 3162 mg/l ( )	3 h	Activated sludge	Publication (2008)	ISO 8192
79-41-4	methacrylic acid					
	Acute fish toxicity	LC50 833 mg/l	96 h	Scophthalmus maximus	Publication (2001)	other: OSPAR Protocols on Methods for th
	Acute algae toxicity	ErC50 54 mg/l	72 h	Raphidocelis subcapitata	Study report, unpublished, cover page mi	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 130 mg/l	48 h	Daphnia magna	REACH Registration Dossier	EPA OTS 797.1300
	Fish toxicity	NOEC 10 mg/l	35 d	Danio rerio	REACH Registration Dossier	OECD Guideline 210
	Crustacea toxicity	NOEC 53 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
	Acute bacteria toxicity	EC50 13500 mg/l ( )	3 h	Activated sludge	Publication (2008)	ISO 8192
28961-43-5	Propylidynetrimethanol, ethoxylated, esters with acrylic acid					
	Acute fish toxicity	LC50 1.95 mg/l	96 h	Danio rerio	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 2.2 mg/l	72 h	Desmodesmus subspicatus	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 70.7 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 13 of 19

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h][d]	Species	Source	Method
1187441-10-6	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Cyprinus carpio	REACH Registration Dossier	EU Method C.1
	Acute algae toxicity	ErC50 90 mg/l	72 h	Selenastrum capricornutum, strain: NIVA CHL 1.	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
868-77-9	2-hydroxyethyl methacrylate					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Oryzias latipes	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 345 mg/l	72 h	Raphidocelis subcapitata	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 380 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Crustacea toxicity	NOEC 24.1 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
136-52-7	Cobalt bis(2-ethylhexanoate)					
	Acute fish toxicity	LC50 54.1 mg/l	96 h	Pimephales promelas	Study report (2009)	other: ASTM guideline
	Acute algae toxicity	ErC50 71.314 mg/l	96 h	Dunaliella tertiolecta	Study report (2010)	other: American Society for Testing and
	Acute crustacea toxicity	EC50 42.7 mg/l	48 h	Aeolosoma sp.	Study report (2008)	Newman, J.P., Jr. 1975. The effects of h
	Fish toxicity	NOEC 0.21 mg/l	34 d	Pimephales promelas	Study report (2009)	other: This study was conducted accordin
	Algae toxicity	NOEC 0.0018 mg/l	7 d	Champia parvula	Study report - model refit from original	other: EPA 821-R-02-014, Method 1009.0
	Crustacea toxicity	NOEC 0.1697 mg/l	14 d	Aeolosoma sp.	Study report (2008)	other: Newman, J.P., Jr. 1975. The effec
	Acute bacteria toxicity	EC50 120 mg/l ( )		Activated sludge	Study report (2010)	OECD Guideline 209

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 14 of 19

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h][d]	Species	Source	Method
91-66-7	N,N-diethylaniline					
	Acute fish toxicity	LC50 42,25 mg/l	96 h	Danio rerio	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 7,42 mg/l	72 h	Desmodesmus subspicatus	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 35,2 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Crustacea toxicity	NOEC 0,936 mg/l	21 d	Daphnia magna	REACH Registration Dossier	other: modelling data
36443-68-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]					
	Acute fish toxicity	LC50 43 mg/l	96 h	Lepomis macrochirus	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	REACH Registration Dossier	EU Method C.3
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h		REACH Registration Dossier	
	Fish toxicity	NOEC > 0.115 mg/l	7 d	Pimephales promelas	REACH Registration Dossier	OECD Guideline 210
	Crustacea toxicity	NOEC > 0.045 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

No data available

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
80-62-6	methyl methacrylate	1,38
79-41-4	methacrylic acid	0.93
28961-43-5	Propylidynetrimethanol, ethoxylated, esters with acrylic acid	2.89
1187441-10-6	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, reaction products with phosphorus oxide	>= 0.3
868-77-9	2-hydroxyethyl methacrylate	0.42
136-52-7	Cobalt bis(2-ethylhexanoate)	2.96
91-66-7	N,N-diethylaniline	3,904
36443-68-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]	4.7

#### BCF

CAS No	Chemical name	BCF	Species	Source
136-52-7	Cobalt bis(2-ethylhexanoate)	23	Asterias rubens	Marine Pollution Bul
91-66-7	N,N-diethylaniline	>= 44 - = 17	Cyprinus carpio	REACH Registration D

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 15 of 19

#### BCF

CAS No	Chemical name	BCF	Species	Source
36443-68-2	Ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]	2 - 12	Cyprinus carpio	REACH Registration D

#### 12.4. Mobility in soil

No data available

#### 12.5. Results of PBT and vPvB assessment

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

#### 12.6. Endocrine disrupting properties

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

#### 12.7. Other adverse effects

No data available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Dispose of waste according to applicable legislation.

##### List of Wastes Code - residues/unused products

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

##### List of Wastes Code - used product

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

##### List of Wastes Code - contaminated packaging

080410 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants other than those mentioned in 08 04 09

##### Contaminated packaging

Completely emptied packages can be recycled. Dispose of waste according to applicable legislation.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number or ID number:** UN 3175  
**14.2. UN proper shipping name:** SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (BMMA-COPOLYMER)  
**14.3. Transport hazard class(es):** 4.1  
**14.4. Packing group:** II  
 Hazard label: 4.1



Classification code: F1  
 Special Provisions: 216 274 601  
 Limited quantity: 1 kg

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 16 of 19

Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 40  
 Tunnel restriction code: E

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:** UN 3175  
**14.2. UN proper shipping name:** SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (BMMA-COPOLYMER)  
**14.3. Transport hazard class(es):** 4.1  
**14.4. Packing group:** II  
 Hazard label: 4.1



Classification code: F1  
 Special Provisions: 216 274 601 800  
 Limited quantity: 1 kg  
 Excepted quantity: E2

#### Marine transport (IMDG)

**14.1. UN number or ID number:** UN 3175  
**14.2. UN proper shipping name:** SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (BMMA-COPOLYMER)  
**14.3. Transport hazard class(es):** 4.1  
**14.4. Packing group:** II  
 Hazard label: 4.1



Special Provisions: 216 274  
 Limited quantity: 1 kg  
 Excepted quantity: E2  
 EmS: F-A, S-I

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 3175  
**14.2. UN proper shipping name:** SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (BMMA-COPOLYMER)  
**14.3. Transport hazard class(es):** 4.1  
**14.4. Packing group:** II  
 Hazard label: 4.1



Special Provisions: A46  
 Limited quantity Passenger: 5 kg  
 Passenger LQ: Y441  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 445  
 IATA-max. quantity - Passenger: 15 kg  
 IATA-packing instructions - Cargo: 448  
 IATA-max. quantity - Cargo: 50 kg

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 17 of 19

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

#### **14.6. Special precautions for user**

No information available.

#### **14.7. Maritime transport in bulk according to IMO instruments**

No information available.

#### **Other applicable information**

1668+1664: UN 3527 = POLYESTER RESIN KIT, solid base material, Class 4.1, II

### **SECTION 15: Regulatory information**

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

##### **EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 40, Entry 75

Directive 2010/75/EU on industrial emissions: 56.675 % (566.745 g/l)

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### **National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - highly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

(EU) EINECS/ELINCS/NLP: yes

(RC) TCSI: no

(NZ) NZIoC: no

(USA) TSCA: yes

(CDN) DSL: no

(ROK) KECI/ECL: yes

(RP) PICCS: unknown

(JP) MITI: yes

(CHN) IECSC: no

(AUS) AIIC: yes

(CDN) NDSL: no

#### **15.2. Chemical safety assessment**

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

### **SECTION 16: Other information**

#### **Changes**

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### **Abbreviations and acronyms**

Flam. Liq. 2: Flammable liquids, hazard category 2

Flam. Sol. 1: Flammable solids, hazard category 1

Acute Tox. 3: Acute toxicity, hazard category 3

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Corr. 1A: Skin corrosion, sub-category 1A

Skin Irrit. 2: Skin irritation, hazard category 2

Eye Dam. 1: Serious eye damage, hazard category 1

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 1670 MA structural adhesive - 1668 resin

Revision: 28.01.2026

Product code: 1668

Page 18 of 19

Eye Irrit. 2: Eye irritation, hazard category 2  
 Skin Sens. 1: Skin sensitisation, hazard category 1  
 Skin Sens. 1A: Skin sensitisation, hazard category 1A  
 Skin Sens. 1B: Skin sensitisation, hazard category 1B  
 Repr. 1B: Reproductive toxicity, hazard category 1B  
 STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3  
 STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2  
 Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1  
 Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1  
 Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2  
 Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3  
 CLP: Classification, labelling and Packaging  
 REACH: Registration, Evaluation and Authorization of Chemicals  
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
 UN: United Nations  
 CAS: Chemical Abstracts Service  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
 IMDG: International Maritime Code for Dangerous Goods  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 VOC: Volatile Organic Compounds  
 SVHC: Substance of Very High Concern

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Sol. 1; H228	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Chronic 3; H412	Calculation method

#### Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.  
 H228 Flammable solid.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**1670 MA structural adhesive - 1668 resin**

Revision: 28.01.2026

Product code: 1668

Page 19 of 19

### Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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