



# WABCOSEAL

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

### 1.1. Product identifier

**Trade name**

WABCOSEAL

**Article No.**

8304070844

**UFI code**

SHJ0-E0MK-F009-SS7C

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

**Product type**

Mixture.

**Relevant identified uses**

Anaerobic Adhesive

**Not suitable for use in**

No uses advised against identified.

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

**SDS created by**

Global Division B Product Compliance Mgmt. System (BWC)

**Supplier**

ZF CV Distribution Germany GmbH & Co. KG

Address

Am Lindener Hafen 21

30453 Hannover

Germany

Telephone

+800 438 92226

**Contact person**

Global Division B Product Compliance Mgmt. System (BWC)

**Email**

msds.zf-aftermarket@zf.com

### 1.4. Emergency telephone number

(+49) 89 19 240 - available in German and English; 112

**Available outside office hours**

Yes



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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### **Classification**

Skin sensitisation, hazard category 1

Hazardous to the aquatic environment — Chronic hazard category 3

#### **Hazard statements**

H317, H412

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### **Hazard pictograms**



#### **Signal word**

Warning

#### **Hazard statements**

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

#### **Precautionary statements**

P273 Avoid release to the environment.

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

P333 +P313 If skin irritation or rash occurs: Get medical advice/attention.

#### **More information**

Contains :

Tetramethylene dimethacrylate

2,2'-Ethylenedioxydiethyl dimethacrylate

Acetic acid, 2-phenylhydrazide

maleic acid

Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]

### 2.3. Other hazards

None.

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration  $\geq 0,1$  %.



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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Specific concentration limits ATE	Note
tetramethylene dimethacrylate	2082-81-7 218-218-1 - 607-766-00-0	10 - <20%	Skin Sens. 1B	H317 - -		-
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0 203-652-6 - 607-768-00-1	5 - <10%	Skin Sens. 1B	H317 - -		-
Acetic acid, 2-phenylhydrazide	114-83-0 204-055-3 01-2120951382-56 -	0.1 - <1%	Acute Tox. 4 - oral, Skin Sens. 1, Carc. 2, Aquatic Acute 1, Aquatic Chronic 1	H302, H317, H351, H400, H410 M-acute=1 M-chro=1		-
maleic acid	110-16-7 203-742-5 01-2119488705-25 607-095-00-3	0.1 - <1%	Acute Tox. 4 - oral, Acute Tox. 4 - dermal, Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, STOT SE 3	H302, H312, H315, H317, H319, H335 - -	Skin Sens. 1, H317: C ≥ 0.1%	-
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]	- - 01-2119978265-26 -	0.1 - <1%	Skin Sens. 1	H317 - -		-

**Product based on**

The product contains synthetic polymer microparticles above the concentration limit, but derogation §4 or §5 apply. (4a) use at industrial sites

Generic Polymer Name:

Polymers of propylene or of other olefins : 0.1-10 %

Polymers of vinyl acetate or of other vinyl esters; other vinyl polymers : 10-30 %



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## **Substance additional information**

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

## **SECTION 4: First aid measures**

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

#### **Inhalation**

Move the exposed person to fresh air at once. IF exposed or concerned: Get medical advice/attention.

#### **Skin contact**

Wash skin with soap and water. Get medical attention if irritation persists after washing.

#### **Eye contact**

Rinse immediately with plenty of water. Get medical attention.

#### **Ingestion**

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria. Prolonged or repeated contact may cause irritation. ( Eyes. )

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

See section 4. - 4.1. Description of first aid measures

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Water spray, foam, dry powder or carbon dioxide.

#### **Unsuitable extinguishing media**

Do not use water jet.

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

In case of fire may be liberated: Carbon monoxide , Carbon dioxide (CO2). nitrogen oxides

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

### **Other**

If possible, remove containers exposed to heat or cool with water.



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## SECTION 6: Accidental release measures

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

Avoid contact with skin and eyes.  
Wear necessary protective equipment.  
Provide adequate ventilation.  
Eliminate all sources of ignition.

### 6.2. Environmental precautions

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

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

Collect and dispose of spillage as indicated in section 13.  
For small spills wipe up with paper towel and place in container for disposal.  
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

### 6.4. Reference to other sections

See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### **Preventive handling precautions**

Avoid spilling, skin and eye contact.  
For personal protection, see section 8.

#### **General hygiene**

Wash hands before breaks and before smoking, eating or drinking.  
Observe good chemical hygiene practices.

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

Provide good ventilation.  
Keep container tightly closed.  
Observe technical data sheet. Observe instructions for use.

### 7.3. Specific end use(s)

Anaerobic Adhesive



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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits

Occupational exposure limits: Not known.

Biological Limit Values (BLV): None.

#### National occupational exposure limits

Ingredient	CAS No. EC No.	Exposure limit ppm / mg/m <sup>3</sup>	Source	Remark	Year
Ethene, homopolymer [Dusts non-specific]	9002-88-4 -	- / 10	IR_OEL	Time Weighted Average (TWA)	-
Ethene, homopolymer [Dusts non-specific]	9002-88-4 -	- / 4	IR_OEL	Time Weighted Average (TWA)	-
Silicon dioxide [SILICA, AMORPHOUS]	112945-52-5 -	- / 6	IR_OEL	Time Weighted Average (TWA)	-
Silicon dioxide [SILICA, AMORPHOUS]	112945-52-5 -	- / 2.4	IR_OEL	Time Weighted Average (TWA)	-
Silicon dioxide [DUSTS NON-SPECIFIC]	112945-52-5 -	- / 10	IR_OEL	Time Weighted Average (TWA)	-
Silicon dioxide [DUSTS NON-SPECIFIC]	112945-52-5 -	- / 4	IR_OEL	Time Weighted Average (TWA)	-

#### DNEL/DMEL

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
Tetramethylene dimethacrylate (2082-81-7/-)	DNEL	Chronic (long term) Dermal	4.2 mg/kg	Workers	Systemic
Tetramethylene dimethacrylate (2082-81-7/-)	DNEL	Chronic (long term) Inhalation	4.2 mg/m <sup>3</sup>	Workers	Systemic
Tetramethylene dimethacrylate (2082-81-7/-)	DNEL	Chronic (long term) Inhalation	4.3 mg/m <sup>3</sup>	Consumers	Systemic
Tetramethylene dimethacrylate (2082-81-7/-)	DNEL	Chronic (long term) Dermal	2.5 mg/kg	Consumers	Systemic
Tetramethylene dimethacrylate (2082-81-7/-)	DNEL	Chronic (long term) Oral	2.5 mg/kg	Consumers	Systemic
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	DNEL	Chronic (long term) Inhalation	48.5 mg/m <sup>3</sup>	Workers	Systemic
2,2'-Ethylenedioxydiethyl dimethacrylate	DNEL	Chronic (long term)	13.9 mg/kg	Workers	Systemic



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Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
(109-16-0/-)		Dermal			
2,2'-Ethylenedioxydiethyl dimethacrylate (-/-)	DNEL	Chronic (long term) Inhalation	14.5 mg/m <sup>3</sup>	Consumers	Systemic
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	DNEL	Chronic (long term) Oral	8.33 mg/kg	Consumers	Systemic
Maleic acid (110-16-7/-)	DNEL	Chronic (long term) Inhalation	0.987 mg/m <sup>3</sup>	Workers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Chronic (long term) Inhalation	35.24 mg/m <sup>3</sup>	Workers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Acute (short term) Inhalation	35.24 mg/m <sup>3</sup>	Workers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Chronic (long term) Inhalation	3.35 mg/m <sup>3</sup>	Workers	Local
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Acute (short term) Inhalation	3.35 mg/m <sup>3</sup>	Workers	Local
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Chronic (long term) Inhalation	8.69 mg/m <sup>3</sup>	Consumers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Acute (short term) Inhalation	8.69 mg/m <sup>3</sup>	Consumers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Chronic (long term) Inhalation	0.83 mg/m <sup>3</sup>	Consumers	Local
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Acute (short term) Inhalation	0.83 mg/m <sup>3</sup>	Consumers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Chronic (long term) Oral	5 mg/kg	Consumers	Systemic
N,N'-Ethane-1,2-diylbis(12-hydroxyocta- decan-1-amide) (-/-)	DNEL	Acute (short term) Oral	5 mg/kg	Consumers	Systemic

PNEC/PEC



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Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Freshwater	0.043 mg/l
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Marine water	0.004 mg/l
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Intermittent releases	0.098 mg/l
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Sewage Treatment Plant	2 mg/l
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Sediment (freshwater)	3.12 mg/kg sediment dw
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Sediment (marine water)	0.312 mg/kg
Tetramethylene dimethacrylate (2082-81-7/-)	PNEC	Soil	0.573 mg/kg
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Freshwater	0.164 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Marine water	0.0164 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Sewage Treatment Plant	10 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Intermittent releases	0.164 mg/l
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Sediment (freshwater)	1.85 mg/kg
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Sediment (marine water)	0.185 mg/kg
2,2'-Ethylenedioxydiethyl dimethacrylate (109-16-0/-)	PNEC	Soil	0.274 mg/kg
N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) (-/-)	PNEC	Sewage Treatment Plant	0.1 mg/l

## 8.2. Exposure controls

### Appropriate engineering controls

Provide good ventilation.

### Personal Protective Equipment Symbols





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## **Eye / face protection**

In case of contact through splashing: safety glasses with side-shields, EN 166.

## **Hand protection**

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): nitrile rubber (NBR;  $\geq 0.4$  mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR;  $\geq 0.4$  mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

## **Other skin protection**

Wear suitable protective clothing as protection against splashing or contamination.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

## **Respiratory protection**

Provide adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area.

Filter type: A (EN 14387)

## **Other**

Advices to personal protection equipment: The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

## **SECTION 9: Physical and chemical properties**

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

#### **Physical state**

No data available

#### **Colour**

No data available

#### **Odour**

No data available



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**Melting point / freezing point**

No data available

**Boiling point or initial boiling point and boiling range**

No data available

**Flammability**

No data available

**Lower and upper explosion limit**

No data available

**Flash point**

No data available

**Auto-ignition temperature**

No data available

**Decomposition temperature**

No data available

**pH**

No data available

**Kinematic viscosity**

No data available

**Solubility**

No data available

**Partition coefficient n-octanol/water**

No data available

**Vapour pressure**

No data available

**Density and/or relative density**

No data available

**Relative vapour density**

No data available

**Particle characteristics**

No data available

**9.2. Other information**

No data available



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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

No data available

### 10.3. Possibility of hazardous reactions

No data available

### 10.4. Conditions to avoid

No data available

### 10.5. Incompatible materials

No data available

### 10.6. Hazardous decomposition products

No data available

## SECTION 11: Toxicological information

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

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

#### **Acute toxicity**

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

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Test animals	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	LD50	10.066 mg/kg	Oral.	Rat.	OCED 401
2,2'-Ethylenedioxy-diethyl dimethacrylate 109-16-0	LD50	10.837 mg/kg	Oral.	Rat.	not specified
Acetic acid, 2-phenylhydrazide 114-83-0	LD50	310 mg/kg	Oral.	Rat.	OECD 425
maleic acid	LD50	708 mg/kg	Oral.	Rat.	not specified



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Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Test animals	Method / Guideline
110-16-7					
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]	LD50	> 2.000 mg/kg	Oral.	Rat.	OECD 423
Tetramethylene dimethacrylate 2082-81-7	LD50	> 3.000 mg/kg	Dermal	Rabbit.	not specified
Tetramethylene dimethacrylate 2082-81-7	LD50	> 2.000 mg/kg	Dermal	Rabbit.	OCED 402
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	ATE	> 5.000 mg/kg	Dermal	-	Expert judgement
maleic acid 110-16-7	LD50	1.560 mg/kg	Dermal	Rabbit.	not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	ATE	28,17 mg/l dust/mist	Inhalation:	-	Expert judgement.
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]	LC50	> 5,05 mg/l dust/mist	Inhalation:	Rat.	OECD 436

**Skin corrosion/irritation**

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



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Product / Substance name CAS / EC no.	Result	Duration of exposure	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	Not irritating.*	24 h	Rabbit.	FDA Guideline
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Not irritating.*	24 h	Rabbit.	Draize Test
Acetic acid, 2-phenylhydrazide 114-83-0	not corrosive	-	Human EpiSkin™ (SM) reconstructed human epidermis (RhE)	OECD 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
Acetic acid, 2-phenylhydrazide 114-83-0	not irritating	-	Human EpiSkin™ (SM) reconstructed human epidermis (RhE)	OECD 439
maleic acid 110-16-7	irritating	24 h	Human	Patch Test

### **Serious eye damage/irritation**

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

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	not irritating	Rabbit.	OECD 405
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating	Rabbit.	OECD 405
Acetic acid, 2-phenylhydrazide 114-83-0	not irritating	Chicken, eye, isolated	OECD 438
maleic acid 110-16-7	highly irritating	Rabbit.	OECD 405

### **Respiratory or skin sensitisation**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Product / Substance name CAS / EC no.	Result	Test type	Species	Method / Guideline
Tetramethylene	sensitising	Mouse local lymphnode	Mouse	OECD 429



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Product / Substance name CAS / EC no.	Result	Test type	Species	Method / Guideline
dimethacrylate 2082-81-7		assay (LLNA)		
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sensitising	Mouse local lymphnode assay (LLNA)	Mouse	OCED 429
Acetic acid, 2-phenylhy- drazide 114-83-0	positive	Direct peptide reactivity assay (DPRA)	cysteine and lysine, in chemico test	OECD 442C
Acetic acid, 2-phenylhy- drazide 114-83-0	positive	Activation of keratino- cytes	human keratinocytes, in vitro test	OECD 442D
Acetic acid, 2-phenylhy- drazide 114-83-0	positive	activation of dendritic cells	human monocytes, in vitro test	OECD 442E
maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	Mouse	OECD 429
maleic acid 110-16-7	sensitising	Guinea pig maximisation test	Guinea pig.	OECD 406
Reaction mass of N,N'- ethane-1,2-diylbis(12- hydroxyoctadecan-1- amide), Octadecanam- ide, 12-hydroxy-N-[2- [(1- oxooctadecyl)amino]eth yl] -	sensitising	Guinea pig maximisation test	Guinea pig.	OECD 406

**Germ cell mutagenicity**

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

Product / Substance name CAS / EC no.	Result	Exposure route	Method / Guideline
Acetic acid, 2-phenylhydrazide 114-83-0	positive	bacterial reverse mutation assay (e.g Ames test)	OECD 471
Acetic acid, 2-phenylhydrazide 114-83-0	negative	in vitro mammalian cell micro- nucleus test	OCED487
maleic acid 110-16-7	negative	bacterial reverse mutation assay (e.g Ames test)	Ames Test
maleic acid	negative	mammalian cell gene mutation	OECD 476



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Product / Substance name CAS / EC no.	Result	Exposure route	Method / Guideline
110-16-7		assay	
Tetramethylene dimethacrylate 2082-81-7	negative	bacterial reverse mutation assay (e.g Ames test)	OECD 471
Tetramethylene dimethacrylate 2082-81-7	positive without metabolic activation	in vitro mammalian chromo- some aberration test	OCED 473
Tetramethylene dimethacrylate 2082-81-7	negative	in vitro mammalian chromo- some aberration test	OECD 473
Tetramethylene dimethacrylate 2082-81-7	negative	in vitro mammalian chromo- some aberration test	OCED 476
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	mammalian cell gene mutation assay	OECD 476
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	bacterial reverse mutation assay (e.g Ames test)	OCED 471
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	in vitro mammalian cell micro- nucleus test	OECD 487

### **Carcinogenicity**

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

Product / Sub- stance name CAS / EC no.	Exposure route	Species	Result	Duration of exposure	Method / Guideline
Acetic acid, 2- phenylhydrazide 114-83-0	Oral. drinking water	Mouse Male / Female	carcinogenic	continuous	not specified
maleic acid 110-16-7	Oral. feed	Rat. Male / Female	not carcinogenic	2 years daily	OECD 451

### **Reproductive toxicity**

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

Product / Sub- stance name CAS / EC no.	Exposure route	Value / Dose	Species	Duration of exposure	Method / Guideline
2,2'-Ethylenedioxy- diethyl dimethac- rylate	Oral. gavage	NOAEL P 1.000 mg/kg NOAEL F1 1.000	Rat.	-	OECD 422



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Product / Substance name CAS / EC no.	Exposure route	Value / Dose	Species	Duration of exposure	Method / Guideline
09-16-0		mg/kg\			
maleic acid 110-16-7	Oral. gavage	NOAEL F1 150 mg/kg NOAEL F2 55 mg/kg	Rat.	Two generation study	OECD 416

### **STOT-single exposure**

No data available.

### **STOT-repeated exposure**

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

Product / Substance name CAS / EC no.	Exposure route	Target organs	Value / Dose	Species	Exposure time / Exposure frequency	Method / Guideline
2,2'-Ethylenedi- oxydiethyl dimethacrylate 109-16-0	Oral. : gavage	Reproduction system	NOAEL 1.000 mg/kg	Rat.	daily	OECD 422
maleic acid 110-16-7	Oral. : feed	-	NOAEL >= 40 mg/kg	Rat.	90 days daily	OECD 408

### **Aspiration hazard**

No data available.

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

### **Endocrine disrupting properties**

No data available.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

#### **Acute fish toxicity**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.



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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	LC50	32,5 mg/l	48 h	-	DIN 38412-15
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LC50	16,4 mg/l	96 h	Danio rerio	OECD 203
maleic acid 110-16-7	LC50	> 245 mg/l	48 h	Leuciscus idus	DIN 38412-15
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	LL50	Toxicity > Water solubility	96 h	Oncorhynchus mykiss	OECD 203
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	NOELR	Toxicity > Water solubility	32 d	Pimephales promelas	OECD 210\

### **Acute algae toxicity**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	EC50	9,79 mg/l	72 h	Desmodismus subspicatus	OCED 201



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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	NOEC	2,11 mg/l	72 h	Desmodemus subspicatus	OCED 201
2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0	EC50	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0	NOEC	18,6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
Acetic acid, 2-phenylhydrazide 114-83-0	EC50	0,258 mg/l	72 h	Pseudokirchneriella subcapitata	OCED 201
Acetic acid, 2-phenylhydrazide 114-83-0	NOEC	0,012 mg/l	72 h	Pseudokirchneriella subcapitata	OCED 201
maleic acid 110-16-7	EC50	74,35 mg/l	72 h	Pseudokirchneriella subcapitata	OCED 201
maleic acid 110-16-7	EC10	11,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
Reaction mass of N,N'-ethane-1,2-diylobis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OCED 201
Reaction mass of N,N'-ethane-1,2-diylobis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	EC10	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD 201



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## **Acute crustacean toxicity**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Acetic acid, 2-phenylhydrazide 114-83-0	EC50	1,1 mg/l	48 h	Daphnia magna	OECD 202
maleic acid 110-16-7	EC50	42,81 mg/l	48 h	Daphnia magna	OECD 202
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	EL50	Toxicity > Water solubility	48 h	Daphnia magna	OCED 202

## **Micro-/macro organism toxicity**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	NOEC	20 mg/l	28 d	Activated sludge.	not specified
maleic acid 110-16-7	EC10	44,6 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8



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## **Chronical toxicity**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	NOEC	5,09 mg/l	21 d	Daphnia magna	OCED 211
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOEC	32 mg/l	21 d	Daphnia magna	OECD 211
maleic acid 110-16-7	NOEC	10 mg/l	21 d	Daphnia magna	Other:*
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	NOEC	Toxicity > Water solubility	21 d	Daphnia magna	OECD 211

## **12.2. Persistence and degradability**

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	Aerobic	28 d	The substance is readily biodegradable.*	84 %	OECD 310
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Aerobic	28 d	The substance is readily biodegradable.*	85 %	OECD 301 B
Acetic acid, 2-	Aerobic	28 d	Not readily biode-	38%	OECD 301 D



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Product / Substance name CAS / EC no.	Type of test	Duration	Result	Degradation	Method / Guideline
phenylhydrazide 114-83-0			gradable.		
maleic acid 110-16-7	Aerobic	28 d	The substance is readily biodegradable.*	97,08 %	OECD 301 B
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	Aerobic	28 d	Not readily biodegradable.	22 %	OECD 301 D
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	Aerobic	60 d	not inherently biodegradable	37 %	OECD 301 D

### 12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	LogKow / LogPow	Temperature	Method / Guideline
Tetramethylene dimethacrylate 2082-81-7	3,1	-	OECD 117
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	2,3	-	OECD 117
Acetic acid, 2-phenylhydrazide 114-83-0	0,74	-	QSAR
maleic acid 110-16-7	5,86	20 °C	OECD 107
Reaction mass of N,N'-ethane-	5,86	-	OECD 117



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Product / Substance name CAS / EC no.	LogKow / LogPow	Temperature	Method / Guideline
1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -			

## 12.4. Mobility in soil

### Mobility

The table below presents the data of the classified substances present in the mixture.

Product / Substance name CAS / EC no.	KOC	Remark
Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] -	> 5,63	PH 5,8 OECD 121

## 12.5. Results of PBT and vPvB assessment

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or vPvB.  
Based on available data, the classification criteria are not met.

## 12.6. Endocrine disrupting properties

No data available.

## 12.7. Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.  
Waste codes should be assigned by the user based on the application for which the product was used.  
Do not spill substance/product and prevent environmental releases.  
Do not rinse packaging before disposal.



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## **Packaging**

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code	Waste description
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances

Please note - an asterisk (\*) next to a code denotes that it is HAZARDOUS WASTE.

## **Other**

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

## **SECTION 14: Transport information**

### **14.1. UN number**

Not regulated.

### **14.2. UN proper shipping name**

**ADR / RID / ADN proper shipping name**

Not regulated.

### **14.3. Transport hazard class(es)**

**Label**

Not regulated.

**ADR / RID Class**

Not regulated.

**ADR / RID Classification code**

Not regulated.

**ADR / RID hazard identification number**

Not regulated.

**IMDG Class**

Not regulated.

**IATA Class**

Not regulated.

**ADN Class**

Not regulated.



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**ADN Class Code**

Not regulated.

**14.4. Packing group**

Not regulated.

**14.5. Environmental hazards**

Not regulated.

**IMDG Marine Pollutant**

Not regulated.

**14.6. Special precautions for user**

Not applicable.

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

Not applicable to product in delivery condition.

**Other**

ADN: Not regulated.

## SECTION 15: Regulatory information

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

**EU regulations**

Regulation (EC) No 2024/590 on substances that deplete the ozone layer, ANNEX I REGULATED SUBSTANCES: : Not applicable.

Regulation (EC) No. 649/2012 Import and export of dangerous chemicals: : Not applicable.

Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: : Not applicable.

VOC = Volatile Organic Compound < 3 %

Seveso III (2012/18/EU): Not applicable.

**National regulations**

No data available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.



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## SECTION 16: Other information

### **Phrase meaning**

Skin Sens. 1 - Skin sensitisation, hazard category 1  
Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3  
Skin Sens. 1B - Skin sensitisation, hazard category 1, sub-category 1B  
Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4  
Carc. 2 - Carcinogenicity, hazard category 2  
Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1  
Aquatic Chronic 1 - Hazardous to the aquatic environment — Chronic hazard category 1  
Acute Tox. 4 - dermal - Acute toxicity, dermal, hazard category 4  
Skin Irrit. 2 - Skin irritation, hazard category 2  
Eye Irrit. 2 - Eye irritation, hazard category 2  
STOT SE 3 - Specific Target Organ Toxicity — Single exposure, hazard category 3  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

### **Other**

#### **Additional information**

This Safety Data Sheet is based on our current knowledge and is intended to describe the product in terms of health, safety, and environmental requirements only.