SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

NOVALOK SF

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

1.1. Product identifier

Product name : NOVALOK SF
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

Sealing compound

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

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
🖷 +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
🖷 +32 14 85 97 38
info@novatech.be

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
Skin Sens.	category 1	H317: May cause an allergic skin reaction.
Skin Irrit.	category 2	H315: Causes skin irritation.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H335: May cause respiratory irritation.

2.2. Label elements

Contains: 2-hydroxyethyl methacrylate; acrylic acid; tert-butyl hydroperoxide.

Signal word Warning

H-statements

H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

P-statements

P280 Wear protective gloves, protective clothing and eye protection/face protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

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	M-factors and ATE
2-hydroxyethyl methacrylate 01-2119490169-29	868-77-9 212-782-2	10% ≤C≤25%	Skin Sens. 1; H317 Skin Irrit. 2; H315 Eye Irrit. 2; H319	(1)(10)	Constituent	
ethoxylated bisphenol A dimethacrylate 01-2119980659-17	41637-38-1	C≤5%	Aquatic Chronic 4; H413	(1)(10)	Constituent	
acrylic acid 01-2119452449-31	79-10-7 201-177-9	C≤2.9%	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Acute 1; H400 STOT SE 3; H335: C≥1%, (CLP Annex VI (ATP 0))	(1)(2)(10)	Constituent	M: 1 (Acute, BIG)
α,α-dimethylbenzyl hydroperoxide 01-2119475796-19	80-15-9 201-254-7	C<1%	Org. Perox. E; H242 Acute Tox. 3; H331 Acute Tox. 4; H312 Acute Tox. 4; H302 STOT RE 2; H373 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 2; H411 Skin Corr. 1B; H314: C≥10%, (CLP Annex VI (ATP 0)) Eye Dam. 1; H318: 3%≤C<10% , (CLP Annex VI (ATP 0)) Skin Irrit. 2; H315: 3%≤C<10% , (CLP Annex VI (ATP 0)) Eye Irrit. 2; H319: 1%≤C<3%, (CLP Annex VI (ATP 0)) STOT SE 3; H335: C<10%, (CLP Annex VI (ATP 0))	(1)(10)	Constituent	
tert-butyl hydroperoxide	75-91-2 200-915-7	C<1%	Org. Perox. C; H242 Flam. Liq. 3; H226 Muta. 2; H341 Carc. 2; H351 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Sens. 1; H317 Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Chronic 2; H411 STOT SE 3; H335: C≥5%, (ECHA) Eye Dam. 1; H318: C≥1%, (ECHA) Skin Sens. 1; H317: C≥0.1%, (ECHA)	(1)(6)(10)	Constituent	
ethanediol 01-2119456816-28	107-21-1 203-473-3	C<1%	Acute Tox. 4; H302	(1)(2)(10)	Constituent	

(1) For H- and EUH-statements in full: see section 16
(2) Substance with a Community workplace exposure limit
(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data
(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:
Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:
Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:
If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:
Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:
Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

4.2.1 Acute symptoms

After inhalation:
Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

After skin contact:
Tingling/irritation of the skin.

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:
Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.

Major fire: Class B foam (not alcohol-resistant).

5.1.2 Unsuitable extinguishing media:
Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

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:
No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:
Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

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 section 8.2

6.1.2 Protective equipment for emergency responders
Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing
See section 8.2

6.2. Environmental precautions

Contain released product.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

See section 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. Remove contaminated clothing immediately. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: 5 °C - 25 °C. Meet the legal requirements. Keep container in a well-ventilated place. Keep out of direct sunlight. Keep only in the original container.

7.2.2 Keep away from:

Heat sources, reducing agents, oxidizing agents, (strong) acids, (strong) bases, metals.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

Metal.

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.

EU

Acrylic acid; Prop-2-enoic acid	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	10 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	29 mg/m³
	Short time value (Indicative occupational exposure limit value)	20 ppm
	Short time value (Indicative occupational exposure limit value)	59 mg/m³ (3)
Ethylene glycol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	52 mg/m³
	Short time value (Indicative occupational exposure limit value)	40 ppm
	Short time value (Indicative occupational exposure limit value)	104 mg/m³

(3): Short-term exposure limit value in relation to a reference period of 1 minute.

Belgium

Acide acrylique; Acide prop-2-énoïque	Time-weighted average exposure limit 8 h	2 ppm
	Time-weighted average exposure limit 8 h	6 mg/m³
Ethylèneglycol (en aérosol)	Time-weighted average exposure limit 8 h	20 ppm (M)
	Time-weighted average exposure limit 8 h	52 mg/m³ (M)
	Short time value	40 ppm (M)
	Short time value	104 mg/m³ (M)

La mention “M” indique que lors d’une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d’intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l’exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d’échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d’échantillonnage.

The Netherlands

Acrylzuur / Prop-2-eenzuur	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	10 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	29 mg/m³
	Short time value (Public occupational exposure limit value)	20 ppm
	Short time value (Public occupational exposure limit value)	59 mg/m³

Ethaan-1,2-diol (damp)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	52 mg/m³
	Short time value (Public occupational exposure limit value)	40 ppm
	Short time value (Public occupational exposure limit value)	104 mg/m³
Ethaan-1,2-diol (druppels)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	3.9 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	10 mg/m³

France

Acide acrylique	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	10 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	29 mg/m³
	Short time value (VRI: Valeur réglementaire indicative)	20 ppm
	Short time value (VRI: Valeur réglementaire indicative)	59 mg/m³
Ethylèneglycol (vapeur)	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	20 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	52 mg/m³
	Short time value (VRI: Valeur réglementaire indicative)	40 ppm
	Short time value (VRI: Valeur réglementaire indicative)	104 mg/m³

Germany

Acrylsäure	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	30 mg/m³
Ethandiol	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	26 mg/m³

Austria

Acrylsäure (Prop-2-ensäure)	Tagesmittelwert (MAK)	10 ppm
	Tagesmittelwert (MAK)	29 mg/m³
	Kurzzeitwert Mow (MAK)	20 ppm
	Kurzzeitwert Mow (MAK)	59 mg/m³
Ethylenglykol	Tagesmittelwert (MAK)	10 ppm
	Tagesmittelwert (MAK)	26 mg/m³
	Kurzzeitwert 5(Mow) 8x (MAK)	20 ppm
	Kurzzeitwert 5(Mow) 8x (MAK)	52 mg/m³

UK

Acrylic acid	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	29 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	20 ppm
	Short time value (Workplace exposure limit (EH40/2005))	59 mg/m³
Ethane-1,2-diol particulate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Ethane-1,2-diol vapour	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	20 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	52 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	40 ppm
	Short time value (Workplace exposure limit (EH40/2005))	104 mg/m³

USA (TLV-ACGIH)

Acrylic acid	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 ppm
Ethylene glycol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	25 ppm (V)
	Short time value (TLV - Adopted Value)	50 ppm (V)
	Short time value (TLV - Adopted Value)	10 mg/m³ (I,H)
tert-Butyl hydroperoxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.1 ppm

(V): Vapor fraction
(I,H): Inhalable fraction, Aerosol only

b) National biological limit values

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

8.1.2 Sampling methods

Product name	Test	Number
1,2-ethanediol	NIOSH	5500

Product name	Test	Number
Acrylic Acid	NON	10
Acrylic Acid	OSHA	2005
Acrylic Acid	OSHA	28
Ethylene Glycol	NIOSH	5523
Ethylene Glycol	OSHA	2024

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 Threshold 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	

ethoxylated bisphenol A dimethacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	3.52 mg/m³	
	Long-term systemic effects dermal	2 mg/kg bw/day	

acrylic acid

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	30 mg/m³	
	Acute systemic effects inhalation	30 mg/m³	
	Long-term local effects inhalation	30 mg/m³	
	Acute local effects inhalation	30 mg/m³	

α,α-dimethylbenzyl hydroperoxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	6 mg/m³	

tert-butyl hydroperoxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.2 mg/m³	
	Acute systemic effects inhalation	85.2 mg/m³	
	Long-term local effects inhalation	0.58 mg/m³	
	Acute local effects inhalation	28.4 mg/m³	
	Long-term systemic effects dermal	0.21 mg/kg bw/day	

ethanediol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	35 mg/m³	
	Long-term systemic effects dermal	106 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	

ethoxylated bisphenol A dimethacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.87 mg/m³	
	Long-term systemic effects dermal	1 mg/kg bw/day	
	Long-term systemic effects oral	0.5 mg/kg bw/day	

acrylic acid

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	3.6 mg/m³	
	Acute systemic effects inhalation	3.6 mg/m³	
	Long-term local effects inhalation	3.6 mg/m³	
	Acute local effects inhalation	3.6 mg/m³	
	Long-term systemic effects oral	0.4 mg/kg bw/day	
	Acute systemic effects oral	1.2 mg/kg bw/day	

tert-butyl hydroperoxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.39 mg/m³	
	Acute systemic effects inhalation	63.6 mg/m³	
	Long-term local effects inhalation	0.1 mg/m³	
	Acute local effects inhalation	21.2 mg/m³	
	Long-term systemic effects dermal	0.037 mg/kg bw/day	
	Long-term systemic effects oral	0.05 mg/kg bw/day	

ethanediol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	7 mg/m³	
	Long-term systemic effects dermal	53 mg/kg bw/day	

PNEC

2-hydroxyethyl methacrylate

Compartments	Value	Remark
Fresh water	0.482 mg/l	
Marine water	0.482 mg/l	
Fresh water (intermittent releases)	1 mg/l	
Marine water (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	

acrylic acid

Compartments	Value	Remark
Fresh water	0.003 mg/l	
Fresh water (intermittent releases)	0.001 mg/l	
Marine water	0.3 µg/l	
STP	0.9 mg/l	
Fresh water sediment	0.024 mg/kg sediment dw	
Marine water sediment	0.002 mg/kg sediment dw	
Soil	1 mg/kg soil dw	
Oral	0.03 g/kg food	

α,α-dimethylbenzyl hydroperoxide

Compartments	Value	Remark
Fresh water	0.003 mg/l	
Marine water	0 mg/l	
Fresh water (intermittent releases)	0.031 mg/l	
STP	0.35 mg/l	
Fresh water sediment	0.023 mg/kg sediment dw	
Marine water sediment	0.002 mg/kg sediment dw	
Soil	0.003 mg/kg soil dw	

ethanediol

Compartments	Value	Remark
Fresh water	10 mg/l	
Marine water	1 mg/l	
Fresh water (intermittent releases)	10 mg/l	
Marine water (intermittent releases)	10 mg/l	
STP	199.5 mg/l	
Fresh water sediment	37 mg/kg sediment dw	
Marine water sediment	3.7 mg/kg sediment dw	
Soil	1.53 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. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
butyl/viton	> 480 minutes		Class 6	

c) Eye protection:

Face shield (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	Mild odour
Odour threshold	No data available in the literature
Colour	Green
Particle size	Not applicable (mixture)
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	3000 mPa.s ; 25 °C
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	No data available in the literature
Relative vapour density	No data available in the literature
Vapour pressure	No data available in the literature
Solubility	Water ; poorly soluble
	Acetone ; soluble
Relative density	1.10 ; 25 °C
Absolute density	1100 kg/m³ ; 25 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	> 100 °C ; Closed cup
pH	Not applicable (non-soluble in water)

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

Reducing agents, oxidizing agents, (strong) acids, (strong) bases, metals.

10.6. Hazardous decomposition products

Upon combustion: CO and CO2 are formed.

SECTION 11: Toxicological information

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

11.1.1 Test results

Acute toxicity

NOVALOK SF

No (test)data on the mixture available

Judgement is based on the relevant ingredients

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 bw	24 h	Rabbit (male)	Experimental value	
Inhalation						Data waiving	

ethoxylated bisphenol A dimethacrylate

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

acrylic acid

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	1000 mg/kg bw - 2000 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Dermal			category 4			Annex VI	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 5.1 mg/l air	4 h	Rat (male / female)	Experimental value	
Inhalation (vapours)			category 4			Annex VI	

α,α-dimethylbenzyl hydroperoxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		382 mg/kg		Rat (male)	Experimental value	
Dermal	LD50		134 mg/kg bw	24 h	Rabbit (male)	Weight of evidence	
Dermal			category 4			Annex VI	
Inhalation (vapours)	LC50		1.39 mg/l	4 h	Rat (male)	Experimental value	Converted value
Inhalation			category 3			Annex VI	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

tert-butyl hydroperoxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to EU Method B.1	560 mg/kg bw		Rat (male / female)	Experimental value	70 % aqueous solution
Dermal	LD50	Equivalent to OECD 402	440 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	70 % aqueous solution
Inhalation (vapours)	LC50	OECD 403	0.84 mg/l	4 h	Rat (male / female)	Experimental value	70 % aqueous solution

ethanediol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	BASF-internal standards	7712 mg/kg bw		Rat (male / female)	Experimental value	Aqueous solution
Oral			category 4			Annex VI	
Dermal	LD50		> 3500 mg/kg bw		Mouse (male / female)	Experimental value	
Inhalation (aerosol)	LC50		> 2.5 mg/l	6 h	Rat (male / female)	Experimental value	

Classification of this substance is debatable as it does not correspond to the conclusion from the test

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVALOK SF

No (test)data on the mixture available

Classification is based on the relevant ingredients

2-hydroxyethyl methacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	Draize Test		24; 48; 72 hrs; 4; 5; 7 days	Rabbit	Experimental value	Single treatment without rinsing
Skin	Not irritating	Equivalent to OECD 404	24 h	24; 72 hours	Rabbit	Experimental value	
Skin	Irritating; category 2					Annex VI	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

ethoxylated bisphenol A dimethacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Read-across	
Skin	Not irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Read-across	

acrylic acid

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	BASF test			Rabbit	Experimental value	Single treatment without rinsing
Skin	Highly corrosive	OECD 404	3 minutes	24; 48; 72 hours	Rabbit	Experimental value	
Inhalation (vapours)	Irritating; STOT SE cat.3					Annex VI	

α,α-dimethylbenzyl hydroperoxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage		24 h		Rabbit	Experimental value	
Skin	Corrosive		24 h		Rabbit	Experimental value	

tert-butyl hydroperoxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	40 CFR 163.81-4		24; 48; 72 hours	Rabbit	Experimental value	70 % aqueous solution
Skin	Corrosive	40 CFR 163.81-5	24 h	24; 72 hours	Rabbit	Experimental value	70 % aqueous solution
Inhalation (vapours)	Irritating; STOT SE cat.3					Expert judgement	

ethanediol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	BASF-internal standards	24 h	8 days	Rabbit	Experimental value	
Skin	Not irritating	BASF-internal standards	20 h	8 days	Rabbit	Experimental value	

Conclusion

Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

Respiratory or skin sensitisation

NOVALOK SF

No (test)data on the mixture available

Classification is based on the relevant ingredients

2-hydroxyethyl methacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Buehler test			Guinea pig (male)	Experimental value	
Skin	Sensitizing	Guinea pig maximisation test			Guinea pig (female)	Experimental value	

ethoxylated bisphenol A dimethacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 429			Mouse (female)	Read-across	

acrylic acid

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Modified Freund's adjuvant test			Guinea pig (female)	Experimental value	

α,α-dimethylbenzyl hydroperoxide

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	

tert-butyl hydroperoxide

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406		24; 48 hours	Guinea pig (male)	Experimental value	70 % aqueous solution

ethanediol

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

Conclusion

May cause an allergic skin reaction.
Not classified as sensitizing for inhalation

Specific target organ toxicity

NOVALOK SF

No (test)data on the mixture available

Judgement is based on the relevant ingredients

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		No effect		Rat (male)	Experimental value
Oral (stomach tube)	NOAEL	OECD 422	300 mg/kg bw/day		No effect		Rat (female)	Experimental value
Inhalation	LOAEC	OECD 413	1232 mg/m³ air		Histopathological changes	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation	NOAEC	OECD 413	352 mg/m³ air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

ethoxylated bisphenol A dimethacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 407	300 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male / female)	Read-across

acrylic acid

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Subchronic toxicity test	83 mg/kg bw/day		No effect	90 days (continuous)	Rat (male / female)	Experimental value
Oral (drinking water)	LOAEL	Subchronic toxicity test	250 mg/kg bw/day		Body weight, organ weight, food consumption	90 days (continuous)	Rat (male / female)	Experimental value
Dermal	NOAEL	Equivalent to OECD 411				13 weeks (3 times / week)	Mouse (male / female)	Experimental value
Inhalation (vapours)	NOAEC local effects	Equivalent to OECD 413	0.074 mg/l air		No effect	13 weeks (daily, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEC systemic effects	Equivalent to OECD 413	0.221 mg/l air		No adverse systemic effects	13 weeks (daily, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	LOAEC local effects	Equivalent to OECD 413	0.221 mg/l air		Focal degeneration of the olfactory epithelium	13 weeks (daily, 5 days / week)	Rat (male / female)	Experimental value

α,α-dimethylbenzyl hydroperoxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	Dose level	Subchronic toxicity test	19 mg/kg		Mortality	7 weeks (3 times / week)	Rat (male)	Experimental value
Inhalation (aerosol)	NOAEC	Subchronic toxicity test	31 mg/m³ air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

tert-butyl hydroperoxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	21 mg/kg bw/day		No adverse systemic effects	45 day(s)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEC systemic effects	Equivalent to OECD 412	66.7 mg/m³ air		No adverse systemic effects	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEC local effects	Equivalent to OECD 412	22.2 mg/m³ air		No effect	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

ethanediol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOEL	Equivalent to OECD 408	150 mg/kg bw/day		No effect	16 week(s)	Rat (male)	Experimental value
Oral (diet)	Dose level	Equivalent to OECD 408	500 mg/kg bw/day	Kidney	Affection of the renal tissue	16 week(s)	Rat (male)	Experimental value
Dermal	NOAEL	OECD 410	2200 mg/kg bw/day - 4400 mg/kg bw/day		No effect	4 weeks (daily)	Dog (male)	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVALOK SF

No (test)data on the mixture available

Judgement is based on the relevant ingredients

2-hydroxyethyl methacrylate

Result	Method	Test substrate	Effect	Value determination	Remark
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 ovary (CHO)	No effect	Experimental value	

ethoxylated bisphenol A dimethacrylate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Read-across	
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)		Read-across	

acrylic acid

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)		Experimental value	
Negative without metabolic activation	Equivalent to OECD 482	Rat liver cells		Experimental value	

α,α-dimethylbenzyl hydroperoxide

Result	Method	Test substrate	Effect	Value determination	Remark
Positive	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

tert-butyl hydroperoxide

Result	Method	Test substrate	Effect	Value determination	Remark
Positive with metabolic activation, positive without metabolic activation	OECD 473	Chinese hamster ovary (CHO)		Experimental value	70 % aqueous solution
Positive with metabolic activation, positive without metabolic activation	Equivalent to EU Method B.13/14	Bacteria (S.typhimurium)		Experimental value	70 % aqueous solution

ethanediol

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S. typhimurium and E. coli)		Experimental value	

Mutagenicity (in vivo)

NOVALOK SF

No (test)data on the mixture available

Judgement is based on the relevant ingredients

2-hydroxyethyl methacrylate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474	2 dose(s)/24-hour interval	Rat (male)		Experimental value

ethoxylated bisphenol A dimethacrylate

Result	Method	Exposure time	Test substrate	Organ	Value determination
					Data waiving

acrylic acid

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	Equivalent to OECD 475		Rat (male / female)		Experimental value

α,α-dimethylbenzyl hydroperoxide

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Dermal)	Micronucleus test	13 weeks (daily, 5 days / week)	Mouse (male / female)	Blood	Experimental value

tert-butyl hydroperoxide

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	OECD 489	3 days (6h / day)	Rat (male)		Experimental value

ethanediol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (diet))	Chromosome aberration assay		Rat (male / female)		Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVALOK SF

No (test)data on the mixture available

Judgement is based on the relevant ingredients

2-hydroxyethyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation	NOAEC	Equivalent to OECD 451	≥ 2.05 mg/l air	102 weeks (6h / day, 5 days / week)	Rat (female)	No carcinogenic effect		Experimental value
Inhalation	NOAEC	Equivalent to OECD 451	≥ 4.1 mg/l air	102 weeks (6h / day, 5 days / week)	Rat (male)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 193.8 mg/kg bw/day	104 weeks (daily)	Rat (female)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 90.3 mg/kg bw/day	104 weeks (daily)	Rat (male)	No carcinogenic effect		Experimental value

acrylic acid

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	NOAEL	Carcinogenic toxicity study	> 52 mg/kg bw/day	21 month(s)	Mouse (male / female)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	OECD 451	≥ 78 mg/kg bw/day	26 month(s) - 28 month(s)	Rat (male / female)	No carcinogenic effect		Experimental value

tert-butyl hydroperoxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOEC	OECD 451	15 ppm	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

ethanediol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (diet)	NOAEL	Carcinogenic toxicity study	1000 mg/kg bw/day	104 weeks (daily)	Rat (male / female)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVALOK SF

No (test)data on the mixture available

Judgement is based on the relevant ingredients

2-hydroxyethyl methacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	450 mg/kg bw/day	23 day(s)	Rabbit (male / female)	No effect		Experimental value
	NOAEL	OECD 422	≥ 1000 mg/kg bw/day		Rat (male / female)	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOEL	OECD 414	50 mg/kg bw/day	23 day(s)	Rabbit	No effect		Experimental value
	NOAEL	OECD 414	450 mg/kg bw/day	23 day(s)	Rabbit	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (P/F1)	Equivalent to OECD 422	≥ 1000 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

ethoxylated bisphenol A dimethacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity								Data waiving
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 421	1000 mg/kg bw/day		Rat (male / female)	No effect		Read-across

acrylic acid

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	OECD 414	≥ 1.08 mg/l air	10 days (6h / day)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEC	OECD 414	0.12 mg/l air	10 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL (P/F1)	OECD 416	460 mg/kg bw/day	12 month(s)	Rat (male / female)	No effect		Experimental value

α,α-dimethylbenzyl hydroperoxide

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	≥ 100 mg/kg bw/day	14 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL systemic effects	OECD 414	100 mg/kg bw/day	14 days (gestation, daily)	Rat	No adverse systemic effects		Experimental value
	NOAEL local effects	OECD 414	15 mg/kg bw/day	14 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility		OECD 421						Data waiving

tert-butyl hydroperoxide

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	22 days (gestation, daily)	Rabbit	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	300 mg/kg bw/day	22 days (gestation, daily)	Rabbit	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 416	1000 mg/kg bw/day	≥ 12 week(s)	Rat (male / female)	No effect		Experimental value

ethanediol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (aerosol))	NOAEC	Developmental toxicity study	150 mg/m³ air	10 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (aerosol))	NOAEC	Developmental toxicity study	1000 mg/m³ air	10 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Oral (diet))	NOAEL	3 generation study	> 1000 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVALOK SF

No (test)data on the mixture available

Chronic effects from short and long-term exposure

NOVALOK SF

Skin rash/inflammation.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

NOVALOK SF

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

2-hydroxyethyl methacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 100 mg/l	96 h	Oryzias latipes	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	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; Nominal concentration
	NOEC	OECD 201	400 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	24.1 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC0		> 3000 mg/l	16 h	Pseudomonas fluorescens	Semi-static system	Fresh water	Experimental value

ethoxylated bisphenol A dimethacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	> 100 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Read-across; GLP
Acute toxicity crustacea	EL50	OECD 202	> 100 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; GLP
Toxicity aquatic micro-organisms	NOEC	Other	13.4 mg/l	28 day(s)	Activated sludge	Static system	Fresh water	Read-across; GLP
Toxicity sediment organisms								Data waiving

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms						Data waiving
Toxicity soil micro-organisms						Data waiving
Toxicity terrestrial plants						Data waiving
Toxicity other terrestrial organisms						Data waiving

acrylic acid

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA OTS 797.1400	27 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	EPA OTS 797.1300	95 mg/l	48 h	Daphnia magna	Flow-through system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	EU Method C.3	0.13 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 210	≥ 10.1 mg/l	45 day(s)	Oryzias latipes	Flow-through system	Fresh water	Experimental value; Growth
Long-term toxicity aquatic crustacea	NOEC	EPA OTS 797.1330	19 mg/l	21 day(s)	Daphnia magna	Flow-through system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	NOEC	ISO 8192	100 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value; Respiration

α,α-dimethylbenzyl hydroperoxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	3.9 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	18.84 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	3.1 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 201	1 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP

Classification is based on the relevant ingredients

ethanediol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 600/4-90/027	> 72860 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	> 100 mg/l		Daphnia magna	Static system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	IC50		10940 mg/l	96 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Cell numbers
Long-term toxicity fish	NOEC	EPA 600/4-89/001	15380 mg/l	7 day(s)	Pimephales promelas	Semi-static system	Fresh water	Experimental value; Weight changes
Long-term toxicity aquatic crustacea	NOEC	EPA 600/4-89/001	8590 mg/l	7 day(s)	Ceriodaphnia dubia	Semi-static system	Fresh water	Experimental value; Reproduction

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 301C	92 % - 100 %; GLP	14 day(s)	Experimental value

ethoxylated bisphenol A dimethacrylate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	24 %; GLP	28 day(s)	Experimental value

Biodegradation soil

Method	Value	Duration	Value determination
			Data waiving

acrylic acid

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	80 % - 90 %; Oxygen consumption	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
SRC AOP v1.92	39.59 h	0.5E6 /cm³	QSAR

Biodegradation soil

Method	Value	Duration	Value determination
	72.9 %; GLP	3 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
	> 1 year(s)		Experimental value

α,α-dimethylbenzyl hydroperoxide

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	3 %; GLP	28 day(s)	Experimental value

ethanediol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301A	90 % - 100 %; GLP	10 day(s)	Experimental value

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

NOVALOK SF

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

2-hydroxyethyl methacrylate

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		0.42	25 °C	Experimental value

ethoxylated bisphenol A dimethacrylate

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
					Data waiving

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		5.62		Practical experience/observation

acrylic acid

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFWIN v2.17	3.162		Pisces	QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		0.46	25 °C	Experimental value

α,α-dimethylbenzyl hydroperoxide

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		1.6	25 °C	Experimental value

tert-butyl hydroperoxide

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

ethanediol

Log Kow

Method	Remark	Value	Temperature	Value determination
		-1.36		Experimental value

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

2-hydroxyethyl methacrylate

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.164 - 0.708	Calculated value

ethoxylated bisphenol A dimethacrylate

(log) Koc

Parameter	Method	Value	Value determination
log Koc		2.56 - 3.88	Calculated value

acrylic acid

(log) Koc

Parameter	Method	Value	Value determination
log Koc	EPA OTS 796.2750	0.78 - 2.14	Experimental value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	1.3 %	0 %	0.02 %	0.02 %	98.7 %	Calculated value

α,α-dimethylbenzyl hydroperoxide

(log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 121	1.6	Experimental value

ethanediol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0	QSAR

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
	0.03 %		0 %	0 %	100 %	QSAR

Conclusion

Contains component(s) that adsorb(s) into the soil
Contains component(s) with potential for mobility in 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. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

NOVALOK SF

Greenhouse gases

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

Ozone-depleting potential (ODP)

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

2-hydroxyethyl methacrylate

Groundwater

Groundwater pollutant

acrylic acid

Groundwater

Groundwater pollutant

Water ecotoxicity pH

pH shift

tert-butyl hydroperoxide

Groundwater

Groundwater pollutant

Water ecotoxicity pH

pH shift

ethanediol

Groundwater

Groundwater pollutant

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

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
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 hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

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

European Union

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), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

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	

14.7. Maritime transport in bulk according to IMO instruments

Annex II of MARPOL 73/78	Not applicable, based on available data

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
5 %	
45.9 g/l	

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC, 2004/37/EC and amendments)

ethanediol

Product name	Skin resorption
Ethylene glycol	Skin

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

European drinking water standards (98/83/EC and 2020/2184)

ethoxylated bisphenol A dimethacrylate

Parameter	Parametric value	Note	Reference
Bisphenol A	2.5 µg/l		Listed in Annex I, Part B, of Directive (EU) 2020/2184 on the quality of water intended for human consumption.

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 · ethoxylated bisphenol A dimethacrylate · acrylic acid · α,α-dimethylbenzyl hydroperoxide · ethanediol	Liquid substances or mixtures 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 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 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 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 H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
· acrylic acid	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.
· 2-hydroxyethyl methacrylate · acrylic acid · α,α-dimethylbenzyl hydroperoxide	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 — serious eye damage category 1 or eye irritant category 2 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council (c) substances listed in Annex IV to	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

	Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex. The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.	

National legislation Belgium

NOVALOK SF

No data available

acrylic acid

Résorption peau	Acide acrylique; Acide prop-2-énoïque; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.

ethanediol

Résorption peau	Ethylèneglycol (en aérosol); D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.

National legislation The Netherlands

NOVALOK SF

Waterbezwaarlijkheid	B (2); Algemene Beoordelingsmethodiek (ABM)

ethanediol

Huidopname (wettelijk)	Ethaan-1,2-diol (damp); H

National legislation France

NOVALOK SF

No data available

ethanediol

Risque de pénétration percutanée	Ethylèneglycol (vapeur); Risque de pénétration percutanée

National legislation Germany

NOVALOK SF

WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

2-hydroxyethyl methacrylate

TA-Luft	5.2.5

ethoxylated bisphenol A dimethacrylate

TA-Luft	5.2.5/I

acrylic acid

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	Acrylsäure; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

α,α-dimethylbenzyl hydroperoxide

TA-Luft	5.2.5

ethanediol

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Ethandiol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	Ethandiol; H; Hautresorptiv

National legislation Austria

NOVALOK SF

No data available

ethanediol

besondere Gefahr der Hautresorption	Ethylenglykol; H

National legislation United Kingdom

NOVALOK SF

No data available

ethanediol

Skin absorption	Ethane-1,2-diol particulate; Sk
	Ethane-1,2-diol vapour; Sk

Other relevant data

NOVALOK SF

No data available

acrylic acid

TLV - Skin absorption	Acrylic acid; Skin; Danger of cutaneous absorption
IARC - classification	3; Acrylic acid
TLV - Carcinogen	Acrylic acid; A4

tert-butyl hydroperoxide

TLV - Skin absorption	tert-Butyl hydroperoxide; Skin; Danger of cutaneous absorption

ethanediol

TLV - Carcinogen	Ethylene glycol; A4

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful 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.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer if inhaled.
H373 May cause damage to organs (lungs) through prolonged or repeated exposure if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative