

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BEST-MK 44xx-Types

Revision date: 24.01.2019

Product code:

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

1.1. Product identifier

BEST-MK 44xx-Types

Further trade names

This MSDS covers the following products:

4422
4425
4426
4429
4433
4434
4451

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	Best Klebstoffe GmbH & Co. KG	
Street:	Gewerbestraße 10-14	
Place:	D-86981 Kinsau	
Telephone:	+49 (0)8869 91384-0	Telefax: +49 (0)8869 91384-15
e-mail:	info@bestklebstoffe.de	
Internet:	www.bestklebstoffe.de	
Responsible Department:	Dr. Gans-Eichler Chemieberatung GmbH Raesfeldstr. 22 48149 Münster	e-mail: info@tge-consult.de Tel.: +49(0)251/394868-69 www.tge-consult.de

1.4. Emergency telephone number:

+49 (0)8869 91384-0 (08:00 - 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 4

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause long lasting harmful effects to aquatic life.

2.2. Label elements

Regulation (EC) No. 1272/2008

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Hazard components for labelling

 2-hydroxyethyl methacrylate
 cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide
 2-methylpropenoic acid, methacrylic acid
 maleic acid

Signal word: Warning

Pictograms:

Hazard statements

 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements

 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P501 Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Chemical characterization

anaerobic adhesive.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
41637-38-1	Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid			65 - < 70 %
	609-946-4		01-2119980659-17	
	Aquatic Chronic 4; H413			
868-77-9	2-hydroxyethyl methacrylate			20 - < 25 %
	212-782-2	607-124-00-X	01-2119490169-29	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317			
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide			1 - < 5 %
	201-254-7	617-002-00-8	01-2119475796-19	
	Org. Perox. E, Acute Tox. 3, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, STOT RE 2, Aquatic Chronic 2; H242 H331 H312 H302 H314 H373 H411			
79-41-4	2-methylpropenoic acid, methacrylic acid			1 - < 5 %
	201-204-4	607-088-00-5	01-2119463884-26	
	Acute Tox. 3, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, STOT SE 3; H311 H332 H302 H314 H335			

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114-83-0	2'-Phenylacetohydrazide		< 1 %
	204-055-3		
	Acute Tox. 3; H301		
110-16-7	maleic acid		< 1 %
	203-742-5	607-095-00-3	
	Acute Tox. 4, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1; H302 H319 H335 H315 H317		
609-72-3	N,N-dimethyl-o-toluidine		< 1 %
	210-199-8	612-056-00-9	
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT RE 2, Aquatic Chronic 3; H331 H311 H301 H373 ** H412		

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

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

 Carbon dioxide (CO₂). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

 Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

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Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Safe handling: see section 7
Personal protection equipment: see section 8

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. See section 8.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Recommended storage temperature: 20°C
Protect against: Light. UV-radiation/sunlight. heat. moisture.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
79-41-4	Methacrylic acid	20	72		TWA (8 h)	WEL
		40	143		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance
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DNEL type	Exposure route	Effect	Value
868-77-9	2-hydroxyethyl methacrylate		
Consumer DNEL, long-term	dermal	systemic	0,83 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,9 mg/m ³
Consumer DNEL, long-term	oral	systemic	0,83 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic	1,3 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	4,9 mg/m ³
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide		
Worker DNEL, long-term	inhalation	systemic	6 mg/m ³
79-41-4	2-methylpropenoic acid, methacrylic acid		
Worker DNEL, long-term	dermal	systemic	4,25 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	29,6 mg/m ³
Worker DNEL, long-term	inhalation	local	88 mg/m ³
Consumer DNEL, long-term	dermal	systemic	2,55 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	6,3 mg/m ³
Consumer DNEL, long-term	inhalation	local	6,55 mg/m ³

PNEC values

CAS No	Substance	Environmental compartment	Value
868-77-9	2-hydroxyethyl methacrylate		
		Freshwater	0,482 mg/l
		Freshwater (intermittent releases)	1 mg/l
		Marine water	0,482 mg/l
		Marine water (intermittent releases)	1 mg/l
		Freshwater sediment	3,79 mg/kg
		Marine sediment	3,79 mg/kg
		Micro-organisms in sewage treatment plants (STP)	10 mg/l
		Soil	0,476 mg/kg
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide		
		Freshwater	0.003 mg/l
		Marine water	0.003 mg/l
		Freshwater sediment	0.023 mg/kg
		Marine sediment	0.002 mg/kg
		Micro-organisms in sewage treatment plants (STP)	0.35 mg/l
		Soil	0.003 mg/kg
79-41-4	2-methylpropenoic acid, methacrylic acid		
		Freshwater	0,82 mg/l
		Freshwater (intermittent releases)	0,82 mg/l
		Marine water	0,82 mg/l
		Micro-organisms in sewage treatment plants (STP)	10 mg/l
		Soil	1,2 mg/kg

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8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation.

Protective and hygiene measures

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Eye/face protection

Eye glasses with side protection (DIN EN 166)

Hand protection

Pull-over gloves of rubber. (DIN EN 374)

Suitable material:

(Breakthrough time ≥ 480 min, (penetration time (maximum wearing period): 160 min)

Butyl rubber. (0,5 mm)

FKM (fluororubber). (0,4 mm)

CR (polychloroprenes, Chloroprene rubber). (0,5 mm)

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Protect skin by using skin protective cream.

Skin protection

Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-exceeding exposure limit values

-insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type: P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Environmental exposure controls

This material and its container must be disposed of in a safe way.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	not determined	
Odour:	characteristic	
pH-Value:		not determined

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined

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Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	not determined
Sustaining combustion:	Not sustaining combustion

Explosive properties none

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined

Auto-ignition temperature

Gas:	not determined
Decomposition temperature:	not determined

Oxidizing properties none

Vapour pressure:	not determined
Density:	not determined
Water solubility:	practically insoluble

Solubility in other solvents not determined

Partition coefficient:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined

9.2. Other information

Solid content:	not determined
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SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.
point of decomposition: > 200 °C

10.3. Possibility of hazardous reactions

Reacts with : Strong acid. Oxidizing agents, strong. Alkalis (alkalis), concentrated.

10.4. Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. Cold. moisture.

10.5. Incompatible materials

Materials to avoid: Strong acid. Oxidizing agents, strong. Alkalis (alkalis), concentrated.

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10.6. Hazardous decomposition products

 Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x)

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
41637-38-1	Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid				
	oral	LD50 >2000 mg/kg	Rat	MSDS extern.	
	dermal	LD50 >2000 mg/kg	Rat	MSDS extern.	
868-77-9	2-hydroxyethyl methacrylate				
	oral	LD50 5564 mg/kg	Rat	Study report (1977)	other: Appraisal of the safety of chem b
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1982)	The test substance, as received, was hel
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide				
	oral	LD50 382 mg/kg	Rat	IUCLID	
	dermal	LD50 (500) mg/kg	Rat	RTECS	
	inhalation (4 h) vapour	LC50 (200) mg/l	Mouse.	IUCLID	
	inhalation aerosol	ATE 0,5 mg/l			
79-41-4	2-methylpropenoic acid, methacrylic acid				
	oral	LD50 1320 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 500-1000 mg/kg	Rabbit	MSDS external	
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) aerosol	LC50 (7,1) mg/l	Rat	ECHA Dossier	
114-83-0	2'-Phenylacetohydrazide				
	oral	LD50 270 mg/kg	Mouse.	RTECS	
110-16-7	maleic acid				
	oral	LD50 (2870) mg/kg	Rat	ECHA Dossier	
609-72-3	N,N-dimethyl-o-toluidine				
	oral	ATE 100 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalation vapour	ATE 3 mg/l			
	inhalation aerosol	ATE 0,5 mg/l			

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Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (2-hydroxyethyl methacrylate; maleic acid)
Respiratory or skin sensitisation:
People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.
2-hydroxyethyl methacrylate (CAS No. 868-77-9):
In vitro mutagenicity/genotoxicity: Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test); Result: positive. ; Method: OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay); Result: negative. ; Method: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test); Result: negative. ;Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative. ;In vivo mutagenicity/genotoxicity:
Method: OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test); Result: negative. ; Method: somatic mutation assay in Drosophila; Result: negative.
Reproductive toxicity: Exposure time: 14d; Species: Rat.; Method: OECD Guideline 422; Result: NOAEL = >1000 mg/kg(bw)/day
Developmental toxicity/teratogenicity: Species: Rabbit; Method: OECD Guideline 414; Result: NOAEL = 450 mg/kg(bw)/day; Literature information: ECHA Dossier
alpha,alpha-dimethylbenzyl hydroperoxide; cumene hydroperoxide (CAS No. 80-15-9):
In vitro mutagenicity/genotoxicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Result: positive.; In vivo mutagenicity/genotoxicity: No experimental indications of in vivo mutagenicity exist.; Literature information: ECHA Dossier
cumene (CAS No. 98-82-8):
In vitro mutagenicity/genotoxicity: No experimental indications of mutagenicity in-vitro exist.
Carcinogenicity: Exposure time: 105 weeks; Species: Rat.; Method: OECD Guideline 451;Result: LOAEC = 205 ppm
Reproductive toxicity: Exposure time: 13 weeks; Species: Rat.; Method: OECD Guideline 413; Result: NOAEL = 1200 ppm
Developmental toxicity/teratogenicity: Exposure time: 29d; Species: Rabbit; Method: OECD Guideline 414
Result: NOAEL = 2300 ppm; Literature information: ECHA Dossier
methacrylic acid; 2-methylpropenoic acid (CAS No. 79-41-4):
In vitro mutagenicity/genotoxicity: No experimental indications of mutagenicity in-vitro exist.
Reproductive toxicity: Exposure time: 74d; Species: Rat.; Method: OECD Guideline 416
Result: NOAEL = 400 mg/kg(bw)/day;
Developmental toxicity/teratogenicity: Exposure time: 29d; Species: Rabbit; Method: OECD Guideline 414
Result: NOAEL = 450 mg/kg(bw)/day; Literature information: ECHA Dossier

STOT-single exposure

May cause respiratory irritation. (cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide; 2-methylpropenoic acid, methacrylic acid)

STOT-repeated exposure

Based on available data, the classification criteria are not met.
2-hydroxyethyl methacrylate (CAS No. 868-77-9):
Subchronic oral toxicity:
Exposure time: 90d; Species: Rat.
Method: OECD Guideline 422
Result: NOAEL = 30 mg/kg(bw)/day; Literature information: ECHA Dossier
alpha,alpha-dimethylbenzyl hydroperoxide; cumene hydroperoxide (CAS No. 80-15-9):
Subchronic inhalation toxicity:
Exposure time: 90d; Species: Rat.
Method: OECD Guideline 408

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Result: NOAEL = 5 ppm; Literature information: ECHA Dossier
 cumene (CAS No. 98-82-8):
 Subchronic inhalation toxicity:
 Exposure time: 90d; Species: Rat.
 Method: OECD Guideline 413
 Result: NOAEC = 125 ppm; Literature information: ECHA Dossier

Aspiration hazard

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

Specific effects in experiment on an animal

No data available.

SECTION 12: Ecological information
12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
41637-38-1	Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid					
	Acute crustacea toxicity	EC50 >100 mg/l	48 h	Daphnia magna	ECHA Dossier	
868-77-9	2-hydroxyethyl methacrylate					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Oryzias latipes	Study report (1997)	OECD Guideline 203
	Acute algae toxicity	ErC50 836 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1997)	OECD Guideline 201
	Acute crustacea toxicity	EC50 380 mg/l	48 h	Daphnia magna	Study report (1997)	OECD Guideline 202
	Crustacea toxicity	NOEC (24,1) mg/l	21 d	Daphnia magna	Study report (1997)	OECD Guideline 211
	Acute bacteria toxicity	(8560 mg/l)	3 h		(1993)	Method: TTC test according to DEV L3
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide					
	Acute fish toxicity	LC50 3,9 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 3,1 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 18,84 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202
79-41-4	2-methylpropenoic acid, methacrylic acid					
	Acute fish toxicity	LC50 (85) mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50 (45) mg/l	72 h	Pseudokirchnerella subcapitata	ECHA Dossier	
	Acute crustacea toxicity	EC50 >130 mg/l	48 h	Daphnia magna	ECHA Dossier	
	Fish toxicity	NOEC 10 mg/l	35 d	Danio rerio	ECHA Dossier	
	Crustacea toxicity	NOEC 53 mg/l	21 d	Daphnia magna	ECHA Dossier	
110-16-7	maleic acid					
	Acute algae toxicity	ErC50 (74,35) mg/l	96 h	Pseudokirchnerella subcapitata	ECHA Dossier	
	Acute crustacea toxicity	EC50 (42,81) mg/l	48 h	Daphnia magna	ECHA Dossier	

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12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
41637-38-1	Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid				
	OECD 301D/ EEC 92/69/V, C.4-E	24%	28	ECHA Dossier	
	Not readily biodegradable (according to OECD criteria)				
868-77-9	2-hydroxyethyl methacrylate				
	OECD 301 C / ISO 9408 / EWG 92/69 Anhang V, C.4-F	>92%	14	ECHA Dossier	
	Easily biodegradable (concerning to the criteria of the OECD)				
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide				
	OECD 301B / ISO 9439 / EWG 92/69 Anhang V, C.4-C	3%	28	ECHA Dossier	
	Not easily bio-degradable (according to OECD-criteria).				
79-41-4	2-methylpropenoic acid, methacrylic acid				
	OECD 301D / EWG 92/69 Anhang V, C.4-E	86%	28	ECHA Dossier	
	Easily biodegradable (concerning to the criteria of the OECD)				
110-16-7	maleic acid				
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	97,08%	28	ECHA Dossier	
	Readily biodegradable (according to OECD criteria).				

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
41637-38-1	Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid	5,3-5,62
868-77-9	2-hydroxyethyl methacrylate	0,42
80-15-9	cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide	2,16
79-41-4	2-methylpropenoic acid, methacrylic acid	0,93
110-16-7	maleic acid	-0,79

BCF

CAS No	Chemical name	BCF	Species	Source
868-77-9	2-hydroxyethyl methacrylate	1,34 - 1,54		McGraw-Hill, New Yor

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Advice on disposal

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

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Non-contaminated packages may be recycled.

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

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14.6. Special precautions for user

Refer to section 6-8

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

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	No information available.
2004/42/EC (VOC):	No information available.
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	2 - clearly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

2-hydroxyethyl methacrylate
cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide
2-methylpropenoic acid, methacrylic acid

SECTION 16: Other information

Changes

Rev. 1,0; 19.09.2016, Initial release
Rev. 2,0; 24.01.2019, Changes in chapter: 1 - 16

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable

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OSHA: Occupational Safety and Health Administration
 PNEC: predicted no effect concentration
 PBT: Persistent bioaccumulative toxic
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 SARA: Superfund Amendments and Reauthorization Act
 SVHC: substance of very high concern
 TRGS Technische Regeln fuerGefahrstoffe
 TSCA: Toxic Substances Control Act
 VOC: Volatile Organic Compounds
 VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe
 WGK: Wassergefaehrungsklasse

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

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Chronic 4; H413	Calculation method

Relevant H and EUH statements (number and full text)

H242	Heating may cause a fire.
H301	Toxic if swallowed.
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.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:
 Health hazards: Calculation method.
 Environmental hazards: Calculation method.
 Physical hazards: On basis of test data and / or calculated and / or estimated.

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

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