

according to Regulation (EC) No 1907/2006

UV Adhesive VERIFIX B 682-T

Revision date: 26.06.2018

Product code: BO5209394

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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Further trade names

BO 5209393, 20 g

BO 5209394, 100 g

BO 5209395, 250 g / BO 5209395S, Spacer, 250 g

BO 5209396, 1000 g / BO 5209396S, Spacer, 1000 g

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

adhesive

1.3. Details of the supplier of the safety data sheet

Company name:	BOHLE AG	
Street:	Dieselstr. 10	
Place:	D-42781 Haan	
Telephone:	+49 2129 5568-0	Telefax: +49 2129 5568-282
e-mail:	info@bohle.de	
Contact person:	Klaus Nehren	Telephone: +49 2129 5568-276
e-mail:	MSDS@bohle.de	
Internet:	www.bohle-group.com	
Responsible Department:	Chemie	

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 Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause respiratory irritation.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

2-hydroxyethyl methacrylate

acrylic acid, prop-2-enoic acid

tert-butyl perbenzoate

maleic acid

Signal word: Danger

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Pictograms:**Hazard statements**

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.

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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

Additional advice on labelling

The product is classified and labelled in accordance with EC directives or respective national laws.

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

Methacrylate/Acrylate resin(s).

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate			< 50%
	227-561-6		01-2119957862-25	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H315 H319 H317 H335 H400 H410			
868-77-9	2-hydroxyethyl methacrylate			< 25%
	212-782-2	607-124-00-X	01-2119490169-29	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317			
24650-42-8	2,2-dimethoxy-1,2-diphenylethan-1-one			< 8,9%
	246-386-6			
	Acute Tox. 4, STOT RE 2, Aquatic Chronic 3; H302 H373 H412			
79-10-7	acrylic acid, prop-2-enoic acid			< 5%
	201-177-9	607-061-00-8	01-2119452449-31	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, STOT SE 3, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 2; H226 H332 H312 H302 H314 H318 H335 H400 H411			
614-45-9	tert-butyl perbenzoate			< 1%
	210-382-2			
	Org. Perox. C, Acute Tox. 4, Skin Irrit. 2, Skin Sens. 1, Aquatic Acute 1; H242 H332 H315 H317 H400			
110-16-7	maleic acid			< 1%
	203-742-5	607-095-00-3		
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H302 H315 H319 H317 H335			

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

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

First aider: Pay attention to self-protection!
Get medical advice/attention if you feel unwell.

After inhalation

Remove casualty to fresh air and keep warm and at rest. If symptoms persist, call a physician.

After contact with skin

Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap. When in doubt or if symptoms are observed, get medical advice.

After contact with eyes

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

After ingestion

Do not induce vomiting. Immediately give large quantities of water to drink. Call a physician immediately.

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

Inhalation: Irritation to respiratory tract
Skin contact : May cause an allergic skin reaction.
Eye contact : Causes serious eye damage.

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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**water spray, dry powder, foam, carbon dioxide (CO₂)**Unsuitable extinguishing media**

High power water jet

5.2. Special hazards arising from the substance or mixtureCarbon monoxide, nitrogen oxides (NO_x)**5.3. Advice for firefighters**

Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment (refer to section 8).

Provide adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Ensure adequate ventilation.

6.4. Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin and eyes.

Do not eat, drink or smoke when using this product.

Ensure adequate ventilation.

Advice on protection against fire and explosion

No special technical protective measures required.

Further information on handling

Avoid: UV-radiation/sunlight

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

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

Keep container tightly closed. Keep locked up.

Recommended storage temperature 5 - 25°C. Keep away from direct sunlight.

7.3. Specific end use(s)

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SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapour. To follow: Occupational exposure limit values

Protective and hygiene measures

Wash hands before breaks and after work. When using do not eat, drink or smoke.
Take off immediately all contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.

Eye/face protection

safety glasses with side-shields conforming to EN166

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
Recommended material: NBR (Nitrile rubber), VITON
Unsuitable material: Natural fibres (e.g. cotton)

Skin protection

Wear suitable protective clothing.

Respiratory protection

Usually no personal respirative protection necessary. When using do not eat, drink or smoke.
In case of inadequate ventilation wear respiratory protection. Full-/half-/quarter-face masks (DIN EN 136/140)
Respirator with filter for organic vapour. Recommended Filter type: A (P2)

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	characteristic

Changes in the physical state

Flash point:	> 100 °C
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Explosive properties

None.

Density (at 25 °C):	1,1 g/cm ³
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Water solubility:	not determined
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Viscosity / dynamic: (at 23 °C)	900 mPa·s
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Solvent content:	0,0%
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SECTION 10: Stability and reactivity**10.1. Reactivity**

Light / UV-radiation/sunlight
Oxidising agent, strong

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

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No known hazardous reactions.

10.4. Conditions to avoid

Keep cool. Protect from sunlight. Heat, flames and sparks.

In case of light influence: Polymerisation

10.5. Incompatible materials

Reducing agent, strong. Oxidising agent, strong
strong acids and strong bases

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

Thermal decomposition can lead to the escape of irritating gases and vapours. Carbon monoxide (CO),
Carbon dioxide (CO₂), Hydrocarbons

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

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Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate				
	oral	LD50 mg/kg	4890	Rat	
	dermal	LD50 mg/kg	>5000	Rabbit	
868-77-9	2-hydroxyethyl methacrylate				
	oral	LD50 mg/kg	5564	Rat	
	dermal	LD50 mg/kg	>5000	Rabbit	
24650-42-8	2,2-dimethoxy-1,2-diphenylethan-1-one				
	oral	LD50 mg/kg	>1694	Rat	
	dermal	LD50 mg/kg	>5000	Rat	
79-10-7	acrylic acid, prop-2-enoic acid				
	oral	LD50 mg/kg	1500	Rat	
	dermal	LD50 mg/kg	2000	Rabbit	
	inhalative (4 h) vapour	LC50	5,1 mg/l	Rat	
	inhalative aerosol	ATE	1,5 mg/l		
614-45-9	tert-butyl perbenzoate				
	oral	LD50 mg/kg	4838	Rat	
	dermal	LD50 mg/kg	3817	Rabbit	
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		
110-16-7	maleic acid				
	oral	ATE mg/kg	500		

SECTION 12: Ecological information
12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate					
	Acute fish toxicity	LC50 mg/l	0,704	96 h	Brachydanio rerio (zebra-fish)	
	Acute algae toxicity	ErC50 mg/l	1,98	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	1,1 mg/l	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC mg/l	0,405	3 d	Pseudokirchneriella subcapitata	
	Crustacea toxicity	NOEC mg/l	0,092	21 d	Daphnia magna (Big water flea)	
868-77-9	2-hydroxyethyl methacrylate					
	Acute fish toxicity	LC50	227 mg/l	96 h	Pimephales promelas	
24650-42-8	2,2-dimethoxy-1,2-diphenylethan-1-one					
	Acute fish toxicity	LC50	6 mg/l	96 h	Lepomis macrochirus (Bluegill)	
	Acute algae toxicity	ErC50 mg/l	0,17	72 h	Scenedesmus subspicatus	
	Acute bacteria toxicity	(>100 mg/l)		3 h	Activated sludge	
79-10-7	acrylic acid, prop-2-enoic acid					
	Acute fish toxicity	LC50	27 mg/l	96 h	Onchorhynchus mykiss	
	Acute algae toxicity	ErC50 mg/l	0,13	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	95 mg/l	48 h	Daphnia magna	
614-45-9	tert-butyl perbenzoate					
	Acute fish toxicity	LC50	1,6 mg/l	96 h	Brachydanio rerio (zebra-fish)	OECD 203
	Acute algae toxicity	ErC50	1,3 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50	11 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate			
	Decomposition with: Water	57%	28	
614-45-9	tert-butyl perbenzoate			
	aerob	70%	28	
	Readily biodegradable, according to appropriate OECD test.			

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
868-77-9	2-hydroxyethyl methacrylate	0,47
24650-42-8	2,2-dimethoxy-1,2-diphenylethan-1-one	3,42
79-10-7	acrylic acid, prop-2-enoic acid	0,35
614-45-9	tert-butyl perbenzoate	3

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

Consult the appropriate local waste disposal expert about waste disposal.

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:

UN 3082

14.2. UN proper shipping name:

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, acrylic acid,
prop-2-enoic acid)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

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Tunnel restriction code: -

Inland waterways transport (ADN)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, acrylic acid,
 prop-2-enoic acid)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Classification code: M6
 Special Provisions: 274 335 375 601
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, acrylic acid,
 prop-2-enoic acid)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Special Provisions: 274, 335, 969
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, acrylic acid,
 prop-2-enoic acid)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Special Provisions: A97 A158 A197
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y964
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 964
 IATA-max. quantity - Passenger: 450 L
 IATA-packing instructions - Cargo: 964

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IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, acrylic acid, prop-2-enoic acid

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): 0 %
0 g/l

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

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

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

- H226 Flammable liquid and vapour.
- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- 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.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Further Information

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

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