

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**UV Adhesive VERIFIX B 682-T**

Revision date: 07/04/2023

Product code: BO5209394

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**1. Identification**
**Product identifier**

UV Adhesive VERIFIX B 682-T

**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

**Recommended use of the chemical and restrictions on use**
**Use of the substance/mixture**

adhesive

**Details of the supplier of the safety data sheet**
**Manufacturer**

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:	Dr. Martin Schade	Telephone: +49 2129 5568-300
e-mail:	MSDS@bohle.de	
Internet:	www.bohle.com	
Responsible Department:	Chemie	

**Trader of the product**

Company name:	Bohle America, Inc.
Street:	10924 Granite Street, Suite 200
Place:	USA-NC 28273 Charlotte
e-mail (Contact person):	sales@bohle.com

**Emergency phone number:** Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463

**2. Hazard(s) identification**
**Classification of the chemical**
**29 CFR Part 1910.1200**

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitization: Skin Sens. 1

Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)

Hazardous to the aquatic environment: Aquatic Chronic 1

**Label elements**
**29 CFR Part 1910.1200**
**Signal word:** Danger

**Pictograms:**

**Hazard statements**

Causes skin irritation

Causes serious eye damage

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May cause an allergic skin reaction  
 May cause respiratory irritation  
 Very toxic to aquatic life with long lasting effects

**Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin: Wash with plenty of Water.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Immediately call a poison center/doctor.  
 If skin irritation or rash occurs: Get medical advice/attention.

**3. Composition/information on ingredients**
**Mixtures**
**Chemical characterization**

Methacrylate/Acrylate resin(s).

**Hazardous components**

CAS No	Components	Quantity
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	44.5 %
73324-00-2	Urethane acrylate	20 %
868-77-9	2-hydroxyethyl methacrylate	20 %
24650-42-8	2,2-dimethoxy-1,2-diphenylethan-1-one	8.8 %
79-10-7	acrylic acid, prop-2-enoic acid	4.9 %
614-45-9	tert-butyl perbenzoate	0.9 %
110-16-7	maleic acid	0.9 %

**4. First-aid measures**
**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.

**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.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

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**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**water spray, dry powder, foam, carbon dioxide (CO<sub>2</sub>)**Unsuitable extinguishing media**

Full water jet

**Specific hazards arising from the chemical**Carbon monoxide, nitrogen oxides (NO<sub>x</sub>)**Special protective equipment and precautions for fire-fighters**

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.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Wear personal protection equipment (refer to section 8).

Provide adequate ventilation.

**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.

**Methods and material for containment and cleaning up****Other information**

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.

**Reference to other sections**

Personal protection equipment (PPE): see section 8

Disposal: see section 13

**7. Handling and storage****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.

**Advice on general occupational hygiene**

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.

**Further information on handling**

Avoid: UV-radiation/sunlight

**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.

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

**8. Exposure controls/personal protection**
**Control parameters**
**Exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
79-10-7	Acrylic acid	2	6		TWA (8 h)	REL

**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

**Individual protection measures, such as personal protective equipment**
**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 (EN 136/140)  
Respirator with filter for organic vapour. Recommended Filter type: A (P2)

**9. Physical and chemical properties**
**Information on basic physical and chemical properties**

Physical state: Liquid  
Color: colorless  
Odor: characteristic

Flash point:	> 100 °C	<b>Test method</b>
pH-Value (at 21 °C):	2,5	5% emulsion
Water solubility:	not determined	
Density (at 25 °C):	1,1 g/cm <sup>3</sup>	

**Other information**
**Information with regard to physical hazard classes**

Explosive properties  
None.

**Other safety characteristics**

Solvent content: 0,0%  
Viscosity / dynamic:  
(at 23 °C) 900 mPa·s

**10. Stability and reactivity**

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**Reactivity**

Light / UV-radiation/sunlight  
Oxidizing agent, strong

**Chemical stability**

Stability: Stable

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Hazardous reactions: May occur

No known hazardous reactions.

**Conditions to avoid**

Keep cool. Protect from sunlight. Heat, flames and sparks.  
In case of light influence: Polymerisation

**Incompatible materials**

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

**Hazardous decomposition products**

No decomposition if stored and applied as directed.  
Thermal decomposition can lead to the escape of irritating gases and vapors. Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrocarbons

**11. Toxicological information****Information on toxicological effects**

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**Acute toxicity**

CAS No	Components					
	Exposure route	Dose	Species	Source	Method	
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate					
	oral	LD50 >5000 mg/kg	Rat			
	dermal	LD50 >5000 mg/kg	Rabbit			
868-77-9	2-hydroxyethyl methacrylate					
	oral	LD50 5050 mg/kg	Rat			
	dermal	LD50 >5000 mg/kg	Rabbit			
24650-42-8	2,2-dimethoxy-1,2-diphenylethan-1-one					
	oral	LD50 >1694 mg/kg	Rat			
	dermal	LD50 >5000 mg/kg	Rat			
79-10-7	acrylic acid, prop-2-enoic acid					
	oral	LD50 500 mg/kg	Rat			
	dermal	LD50 1100 mg/kg	Rat			
	inhalation (4 h) vapour	LC50 11 mg/l	Rat			
	inhalation dust/mist	ATE 1,5 mg/l				
614-45-9	tert-butyl perbenzoate					
	oral	LD50 4838 mg/kg	Rat			
	dermal	LD50 3817 mg/kg	Rabbit			
	inhalation vapour	ATE 11 mg/l				
	inhalation dust/mist	ATE 1,5 mg/l				
110-16-7	maleic acid					
	oral	LD50 1090 mg/kg	Rat	OECD 401		
	dermal	LD50 1560 mg/kg	Rabbit			

Carcinogenicity (OSHA):

No ingredient of this mixture is listed.

Carcinogenicity (IARC):

Acrylic acid (CAS 79-10-7) is listed in group 3.

Carcinogenicity (NTP):

No ingredient of this mixture is listed.

**12. Ecological information**
**Ecotoxicity**

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CAS No	Components					
	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	Danio rerio (zebrafish)	OECD 203
	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	(EC50 mg/l)	>100	3 h	Activated sludge	
614-45-9	tert-butyl perbenzoate					
	Acute fish toxicity	LC50	1,6 mg/l	96 h	Danio rerio (zebrafish)	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
110-16-7	maleic acid					
	Acute fish toxicity	LC50	75 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	74,35	72 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50 mg/l	42,81	48 h	Daphnia magna (Big water flea)	OECD 202

**Partition coefficient n-octanol/water**

CAS No	Components	Log Pow
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	4,52
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
110-16-7	maleic acid	-1,3

**BCF**

CAS No	Components	BCF	Species	Source
110-16-7	maleic acid	<10		

**Endocrine disrupting properties**

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

**13. Disposal considerations**
**Waste treatment methods**
**Disposal recommendations**

Consult the appropriate local waste disposal expert about waste disposal.

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**Contaminated packaging**

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

**14. Transport information**
**U.S. DOT 49 CFR 172.101**
**UN number or ID number:**

UN 3082

**Proper shipping name:**

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (@5888.33.5Pan, @0079.10.7Pan)

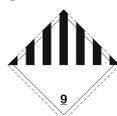
**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:


**Marine transport (IMDG)**
**UN number or ID number:**

UN 3082

**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)

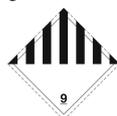
**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:



Special Provisions:

274, 335, 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

**Air transport (ICAO-TI/IATA-DGR)**
**UN number or ID number:**

UN 3082

**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)

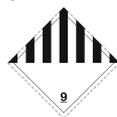
**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:



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

IATA-max. quantity - Cargo:

450 L

**Environmental hazards**

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ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: @5888.33.5Pan, @0079.10.7Pan

**15. Regulatory information**
**U.S. Regulations**
**National regulatory information**

SARA Section 304 CERCLA:

Acrylic acid (79-10-7): Reportable quantity = 5,000 (2270) lbs. (kg)

Maleic acid (110-16-7): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (5888-33-5): Immediate (acute) health hazard

Urethane acrylate (73324-00-2): Immediate (acute) health hazard

2-hydroxyethyl methacrylate (868-77-9): Immediate (acute) health hazard

2,2-dimethoxy-1,2-diphenylethan-1-one (24650-42-8): Immediate (acute) health hazard, Delayed (chronic) health hazard

Acrylic acid (79-10-7): Fire hazard, Immediate (acute) health hazard

tert-butyl perbenzoate (614-45-9): Reactive, Immediate (acute) health hazard

Maleic acid (110-16-7): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Acrylic acid (79-10-7): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Acrylic acid (79-10-7)

**State Regulations**
**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**16. Other information**
**Hazardous Materials Information Label (HMIS)**

Health: 3

Flammability: 1

Physical Hazard: 0

**NFPA Hazard Ratings**

Health: 2

Flammability: 1

Reactivity: 0

Unique Hazard:

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**Other data**

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.)*