

according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 1 of 10

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: 42781 Haan
Telephone: +49 2129 5568-0

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



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 2 of 10

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.



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 3 of 10

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

water spray, dry powder, foam, carbon dioxide (CO2)

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

Carbon monoxide, nitrogen oxides (NOx)

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.



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 4 of 10

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/m³	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

Test method

Changes in the physical state

Flash point: > 100 °C

Explosive properties

None.

pH-Value (at 21 °C): 2,5 5% emulsion

Viscosity / dynamic: 900 mPa⋅s

(at 23 °C)

Water solubility: not determined

Density (at 25 °C): 1,1 q/cm³

Other information

Other safety characteristics

Solvent content: 0,0%

Further Information



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 5 of 10

10. Stability and reactivity

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 (CO2), Hydrocarbons

11. Toxicological information

Information on toxicological effects



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 6 of 10

Acute toxicity

CAS No	Components	Components						
	Exposure route	Dose		Species	Source	Method		
5888-33-5	Exo-1,7,7-trimethylbicyc	lo[2.2.1]hep	t-2-yl acrylate	-				
	oral	LD50 mg/kg	>5000	Rat				
	dermal	LD50 mg/kg	>5000	Rabbit				
868-77-9								
	oral	LD50 mg/kg	5050	Rat				
	dermal	LD50 mg/kg	>5000	Rabbit				
24650-42-8	2,2-dimethoxy-1,2-diphe	nylethan-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	500	Rat				
	dermal	LD50 mg/kg	1100	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 mg/kg	4838	Rat				
	dermal	LD50 mg/kg	3817	Rabbit				
	inhalation vapour	ATE	11 mg/l					
	inhalation dust/mist	ATE	1,5 mg/l					
110-16-7	maleic acid							
	oral	LD50 mg/kg	1090	Rat	OECD 401			
	dermal	LD50 mg/kg	1560	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



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 7 of 10

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 methacryl	ate							
	Acute fish toxicity	LC50	227 mg/l	96 h	Pimephales promelas				
24650-42-8	2,2-dimethoxy-1,2-dipher	ylethan-1-o	ne						
	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.



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 8 of 10

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

<u>Proper shipping name:</u> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(@5888.33.5Pan, @0079.10.7Pan)

Transport hazard class(es):

Packing group:
Hazard label:



Ш

9

Ш

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):

Packing group:
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

<u>UN proper shipping name:</u> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

 $({\sf Exo-1,7,7-trimethylbicyclo[2.2.1]} hept-2-yl\ acrylate,\ acrylic\ acid,$

prop-2-enoic acid)

<u>Transport hazard class(es):</u>
Packing group:

Hazard label:



9

Ш

Special Provisions: A97 A158 A197

Limited quantity Passenger: 30 kg G
Passenger LQ: Y964
Excepted quantity: E1

IATA-packing instructions - Passenger:964IATA-max. quantity - Passenger:450 LIATA-packing instructions - Cargo:964IATA-max. quantity - Cargo:450 L

Environmental hazards



according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 9 of 10

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:2Flammability:1Reactivity:0

Unique Hazard:

Changes

Revision date: 03.05.2022 Revision No: 2.13

This data sheet contains changes from the previous version in section(s): 2.

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.





according to 29 CFR 1910.1200(g)

UV Adhesive VERIFIX B 682-T

Revision date: 05/03/2022 Product code: BO5209394 Page 10 of 10

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