

UV Adhesive VERIFIX B 665-0

Revision date: 04/28/2022 Product code: BO5209300 Page 1 of 11

1. Identification

Product identifier

UV Adhesive VERIFIX B 665-0

Further trade names

BO 5209327, 20 g

BO 5209300, 100 g

BO 5209321, 250 g

BO 5209324, 1000 g

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

adhesives

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 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 lnternet: 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

Regulation (EC) No 1272/2008

Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

2-hydroxyethyl methacrylate

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate

acrylic acid, prop-2-enoic acid

maleic acid

tert-butyl perbenzoate

3-methoxysilylpropyl methacrylate



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Signal word: Danger

Pictograms:





Hazard statements

H315 Causes skin irritation
H318 Causes serious eye damage
H317 May cause an allergic skin reaction
H335 May cause respiratory irritation

H412 Harmful to aquatic life with long lasting effects

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 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.

P333+P317 If skin irritation or rash occurs: Get medical help.

3. Composition/information on ingredients

<u>Mixtures</u>

P310

Chemical characterization

Methacrylate/Acrylate resin(s).



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Hazardous components

CAS No	Components			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) N	lo 1272/2008)	•	
868-77-9	2-hydroxyethyl methacrylate			35 - < 40 %
	212-782-2	607-124-00-X	01-2119490169-29	
	Skin Irrit. 2, Eye Irrit. 2, Skin Ser	s. 1; H315 H319 H317		
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]	nept-2-yl acrylate		35 - < 40 %
	227-561-6		01-2119957862-25	
	Skin Irrit. 2, Eye Irrit. 2, Skin Ser H319 H317 H335 H400 H410	s. 1, STOT SE 3, Aquatic A	cute 1, Aquatic Chronic 1; H315	
79-10-7	acrylic acid, prop-2-enoic acid			1 - < 5 %
	201-177-9	607-061-00-8	01-2119452449-31	
	Flam. Liq. 3, Acute Tox. 4, Acute H332 H312 H302 H314 H400	Corr. 1A, Aquatic Acute 1; H226		
110-16-7	maleic acid	1 - < 5 %		
	203-742-5	607-095-00-3	01-2119488705-25	
	Acute Tox. 4, Skin Irrit. 2, Eye Irr	it. 2, Skin Sens. 1, STOT SI	E 3; H302 H315 H319 H317 H335	
614-45-9	tert-butyl perbenzoate			1 - < 5 %
	210-382-2		01-2119513317-46	
	Org. Perox. C, Acute Tox. 4, Ski H332 H315 H317 H400 H412	n Irrit. 2, Skin Sens. 1, Aqua	tic Acute 1, Aquatic Chronic 3; H242	
2530-85-0	3-methoxysilylpropyl methacryla	< 1 %		
	219-785-8		01-2119513216-50	
	Skin Sens. 1; H317			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Components	Quantity
	Specific Conc.	Limits, M-factors and ATE	
868-77-9	212-782-2	2-hydroxyethyl methacrylate	39 %
	dermal: LD50	= >5000 mg/kg; oral: LD50 = 5050 mg/kg	
5888-33-5	227-561-6	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	39 %
	dermal: LD50 M chron.; H41	= >5000 mg/kg; oral: LD50 = >5000 mg/kg M acute; H400: M=1 0: M=1	
79-10-7	201-177-9	acrylic acid, prop-2-enoic acid	4.9 %
		50 = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 oral: LD50 = 500 mg/kg STOT SE 3; H335: >= 1 - 100	
110-16-7	203-742-5	maleic acid	2.9 %
	dermal: LD50	= 1560 mg/kg; oral: LD50 = 1090 mg/kg Skin Sens. 1; H317: >= 0,1 - 100	
614-45-9	210-382-2	tert-butyl perbenzoate	2.9 %
	l l	E = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = ral: LD50 = 4838 mg/kg	
2530-85-0	219-785-8	3-methoxysilylpropyl methacrylate	0.9 %
	oral: LD50 = >	 >5000 mg/kg	

4. First-aid measures

Description of first aid measures



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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.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water spray jet, Extinguishing powder, Foam, Carbon dioxide (CO2)

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

Burning produces irritant fumes. Carbon monoxide, Carbon dioxide, Hydrocarbons, 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



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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.

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

Specific end use(s)

adhesive

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

DNEL/DMEL values

CAS No.	Substance					
DNEL type	DNEL type		Effect	Value		
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate					
Worker DNEL, long-term		dermal	systemic	1,39 mg/kg bw/day		
79-10-7	0-7 acrylic acid, prop-2-enoic acid					
Worker DNEL,	long-term	inhalation	systemic	30 mg/m³		
Worker DNEL, acute		inhalation	systemic	30 mg/m³		
Worker DNEL, long-term		inhalation	local	30 mg/m³		
Worker DNEL, acute		inhalation	local	30 mg/m³		



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PNEC values

CAS No.	Substance		
Environment	Environmental compartment		
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate		
Freshwater		0,00092 mg/l	
Marine wate		0,000092 mg/l	
Freshwater	sediment	0,145 mg/kg	
Marine sedir	nent	0,0145 mg/kg	
Micro-organisms in sewage treatment plants (STP)		2 mg/l	
Soil		0,0285 mg/kg	
79-10-7	acrylic acid, prop-2-enoic acid		
Freshwater		0,003 mg/l	
Freshwater (0,0013 mg/l		
Marine wate	0,0003 mg/l		
Freshwater	Freshwater sediment		
Marine sedir	Marine sediment		

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: 101 °C

Explosive properties

None.

pH-Value (at 21 °C): 2 5% emulsion



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Viscosity / dynamic: 55 mPa⋅s

(at 20 °C)

Water solubility: practically insoluble

Other information

Other safety characteristics

Solvent content: 0%

Further Information

10. Stability and reactivity

Reactivity

Light / UV-radiation/sunlight Oxidizing agent, strong

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

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



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Acute toxicity

CAS No	Components								
	Exposure route	Dose		Species	Source	Method			
868-77-9	2-hydroxyethyl methacry	2-hydroxyethyl methacrylate							
	oral	LD50 mg/kg	5050	Rat					
	dermal	LD50 mg/kg	>5000	Rabbit					
5888-33-5	Exo-1,7,7-trimethylbicycl	o[2.2.1]hep	t-2-yl acrylate	•					
	oral	LD50 mg/kg	>5000	Rat					
	dermal	LD50 mg/kg	>5000	Rabbit					
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						
110-16-7	maleic acid								
	oral	LD50 mg/kg	1090	Rat	OECD 401				
	dermal	LD50 mg/kg	1560	Rabbit					
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						
2530-85-0	3-methoxysilylpropyl met	thacrylate							
	oral	LD50 mg/kg	>5000	Rat					

12. Ecological information



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CAS No	Components							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	:	Method
868-77-9	2-hydroxyethyl methacryla	ate						
	Acute fish toxicity	LC50	227 mg/l	96 h	Pimephales promelas			
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		Daphnia magna (Big water flea)			
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		Daphnia magna (Big water flea)	OECD	202	
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	
2530-85-0	3-methoxysilylpropyl methacrylate							
	Acute fish toxicity	LC50 mg/l	>1024	96 h	Danio rerio (zebrafish)			
	Acute algae toxicity	ErC50 mg/l	>536	72 h	Scenedesmus subspicatus			
	Acute crustacea toxicity	EC50 mg/l	>876	48 h	Daphnia magna (Big water flea)			
CAS No	Components							
	Method				Value		d	Source
	Evaluation							
5888-33-5	Exo-1,7,7-trimethylbicyclo	[2.2.1]hept-2	2-yl acrylate					
					57%		28	
614-45-9	tert-butyl perbenzoate							
	aerob 70% 28							
	Readily biodegradable, according to appropriate OECD test.							
2530-85-0	3-methoxysilylpropyl meth	nacrylate			loos/			
	aerob 69% 28 Readily biodegradable (according to OECD criteria).							

Partition coefficient n-octanol/water

CAS No	Components	Log Pow
868-77-9	2-hydroxyethyl methacrylate	0,47
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	4,52
79-10-7	acrylic acid, prop-2-enoic acid	0,35
110-16-7	maleic acid	-1,3
614-45-9	tert-butyl perbenzoate	3
2530-85-0	3-methoxysilylpropyl methacrylate	2,1

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Safety Data Sheet

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BCF

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

Results of PBT and vPvB assessment

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

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.

List of Wastes Code - 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

List of Wastes Code - 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.

14. Transport information

Land transport (ADR/RID)

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

Inland waterways transport (ADN)

UN number or ID number:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

UN number or ID number:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

15. Regulatory information

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



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EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2004/42/EC (VOC): 0 %

0 g/l

National regulatory information

Employment restrictions: Observe employment restrictions for young people.

Water hazard class (D): 2 - obviously hazardous to water

Chemical Safety Assessment

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

16. Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,11.

Classification for mixtures and used evaluation method according to GHS

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H statements (full text)

H226	Flammable liquid and vapor
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
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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.)