

**VERIFIX 2K-60 Comp.B**

Revision date: 01/16/2024

Product code: BO5500540B

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

VERIFIX 2K-60 Comp.B

**Further trade names**

BO 5500540 = 25ml BO 5500540A + 25 ml BO 5500540B

Product group: Zulieferprodukt

**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****Regulation (EC) No 1272/2008**

Flam. Liq. 2; H225  
Skin Corr. 1A; H314  
Eye Dam. 1; H318  
Skin Sens. 1; H317  
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

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

Methyl methacrylate  
2-hydroxyethyl methacrylate  
2-methylpropenoic acid, methacrylic acid  
1-Benzoyl-2-ethylimidazol

**Signal word:** Danger

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**Pictograms:**

**Hazard statements**

H225	Highly flammable liquid and vapor
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation

**Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Methacrylate/Acrylate resin(s).

**Hazardous components**

CAS No	Components			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
80-62-6	Methyl methacrylate			<50 %
	201-297-1	607-035-00-6	01-2119452498-28	
	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335			
868-77-9	2-hydroxyethyl methacrylate			< 50 %
	212-782-2	607-124-00-X	01-2119490169-29	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317			
79-41-4	2-methylpropenoic acid, methacrylic acid			<20 %
	201-204-4	607-088-00-5	01-2119463884-26	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A; H312 H302 H314			
614-23-3	Benzoyl Thiourea			<10 %
	Acute Tox. 4; H302			
	1-Benzoyl-2-ethylimidazol			<3 %
	Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H318 H317 H412			

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

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**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Components	Quantity
		Specific Conc. Limits, M-factors and ATE	
80-62-6	201-297-1	Methyl methacrylate	<50 %
		inhalation: LC50 = 78 mg/l (vapours); dermal: LD50 = >5000 mg/kg; oral: LD50 = 7900 mg/kg	
868-77-9	212-782-2	2-hydroxyethyl methacrylate	< 50 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = 5050 mg/kg	
79-41-4	201-204-4	2-methylpropenoic acid, methacrylic acid	<20 %
		inhalation: LC50 = >3,6 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: LD50 = 1320 mg/kg STOT SE 3; H335: >= 1 - 100	
614-23-3		Benzoyl Thiourea	<10 %
		oral: ATE = 500 mg/kg	

**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.

**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**

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**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.  
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/m <sup>3</sup>	f/cc	Category	Origin
79-41-4	Methacrylic acid	20	70		TWA (8 h)	REL
80-62-6	Methyl methacrylate	100	410		TWA (8 h)	PEL
		100	410		TWA (8 h)	REL

**Exposure controls**

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**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:	pink	
Odor:	characteristic	
Boiling point or initial boiling point and boiling range:		101 °C
Flash point:		10 °C
Viscosity / kinematic: (at 23 °C)		5000 mm <sup>2</sup> /s
Water solubility:		not determined
Vapor pressure: (at 20 °C)		47 hPa
Density (at 25 °C):		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%
Solid content:	100%
Viscosity / dynamic: (at 25 °C)	5000 mPa·s

**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.

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**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**
**Acute toxicity**

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
80-62-6	Methyl methacrylate				
	oral	LD50 mg/kg	7900	Rat	
	dermal	LD50 mg/kg	>5000	Rabbit	OECD 402
	inhalation (4 h) vapour	LC50	78 mg/l	Rat	
868-77-9	2-hydroxyethyl methacrylate				
	oral	LD50 mg/kg	5050	Rat	
	dermal	LD50 mg/kg	>5000	Rabbit	
79-41-4	2-methylpropenoic acid, methacrylic acid				
	oral	LD50 mg/kg	1320	Rat	OECD 401
	dermal	ATE mg/kg	1100		
	inhalation (4 h) dust/mist	LC50	>3,6 mg/l	Rat	OECD 403
614-23-3	Benzoyl Thiourea				
	oral	ATE mg/kg	500		

**Information on other hazards**
**Endocrine disrupting properties**

This information is not available.

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

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CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
80-62-6	Methyl methacrylate					
	Acute fish toxicity	LC50	283 mg/l	96 h	Lepomis macrochirus (Bluegill)	
	Acute algae toxicity	ErC50	110 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50	69 mg/l	48 h	Daphnia magna (Big water flea)	
868-77-9	2-hydroxyethyl methacrylate					
	Acute fish toxicity	LC50	227 mg/l	96 h	Pimephales promelas	
79-41-4	2-methylpropenoic acid, methacrylic acid					
	Acute fish toxicity	LC50	100-180 mg/l	96 h	Danio rerio (zebrafish)	OECD 203
	Acute crustacea toxicity	EC50	>130 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202

CAS No	Components			
	Method	Value	d	Source
	Evaluation			
80-62-6	Methyl methacrylate			
	aerob	94%	14	
	Readily biodegradable (according to OECD criteria).			
79-41-4	2-methylpropenoic acid, methacrylic acid			
	OECD 301D	86%		
	Readily biodegradable (according to OECD criteria).			

**Partition coefficient n-octanol/water**

CAS No	Components	Log Pow
80-62-6	Methyl methacrylate	1,38
868-77-9	2-hydroxyethyl methacrylate	0,47

**Mobility in soil**

This information is not available.

**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.

**Other adverse effects**

This information is not available.

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

Consult the appropriate local waste disposal expert about waste disposal.

**List of Wastes Code - used product**

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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: UN 1133  
UN proper shipping name: Adhesives (Methyl methacrylate, 2-methylpropenoic acid, methacrylic acid)  
Transport hazard class(es): 3  
Packing group: III  
 Hazard label: 3



Classification Code: F1  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 Transport category: 3  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

UN number or ID number: UN 1133  
UN proper shipping name: Adhesives (Methyl methacrylate, 2-methylpropenoic acid, methacrylic acid)  
Transport hazard class(es): 3  
Packing group: III  
 Hazard label: 3



Classification Code: F1  
 Limited quantity: 5 L  
 Excepted quantity: E1

**Marine transport (IMDG)**

UN number or ID number: UN 1133  
UN proper shipping name: Adhesives (Methyl methacrylate, Methacrylic acid)  
Transport hazard class(es): 3  
Packing group: III  
 Hazard label: 3



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Special Provisions: 223, 955  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 EmS: F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

UN number or ID number: UN 1133  
UN proper shipping name: Adhesives (Methyl methacrylate, Methacrylic acid)  
Transport hazard class(es): 3  
Packing group: III  
 Hazard label: 3



Special Provisions: A3  
 Limited quantity Passenger: 10 L  
 Passenger LQ: Y344  
 Excepted quantity: E1  
 IATA-packing instructions - Passenger: 355  
 IATA-max. quantity - Passenger: 60 L  
 IATA-packing instructions - Cargo: 366  
 IATA-max. quantity - Cargo: 220 L

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**15. Regulatory information**
**Safety, health and environmental regulations/legislation specific for the substance or mixture**
**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): 1,11,12.

**Classification for mixtures and used evaluation method according to GHS**

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Corr. 1A; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method

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**Relevant H statements (full text)**

H225	Highly flammable liquid and vapor
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
H335	May cause respiratory irritation
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.

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