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**UV sealing resin BB2**

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

UV sealing resin BB2

**Further trade names**

UV-Verschlussharz BB2  
 Résine d'étanchéité UV BB2  
 Resina de acabado UV BB2

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

Adhesives, sealants

**Uses advised against**

No information available.

**1.3. Details of the supplier of the safety data sheet**

Company name:	PMA/TOOLS AG	
Street:	Siemensring 42	
Place:	D-47877 Willich	
Telephone:	+49 2154 922230	Telefax: +49 2154 922255
e-mail:	info@pma-tools.de	
Contact person:	Michael Münter	
e-mail:	msds@pma-tools.de	- Please DO NOT use for requesting Safety Data Sheets.
Internet:	www.pma-tools.de	
Responsible Department:	Labor	

**1.4. Emergency telephone number:** Telephone number of the company in case of emergencies:  
 +49 2154 922230 (Mon - Fri 8.00h - 17.00h)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

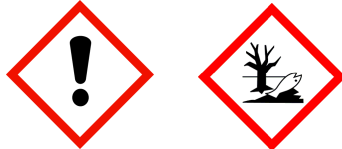
Skin corrosion/irritation: Skin Irrit. 2  
 Serious eye damage/eye irritation: Eye Irrit. 2  
 Respiratory or skin sensitisation: Skin Sens. 1  
 Specific target organ toxicity - single exposure: STOT SE 3  
 Hazardous to the aquatic environment: Aquatic Chronic 1  
 Hazard Statements:  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 May cause respiratory irritation.  
 Very toxic to aquatic life with long lasting effects.

**2.2. Label elements**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

**Hazard components for labelling**

2-hydroxyethyl methacrylate  
 Hydroxypropyl methacrylate (isomers mixture)  
 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate  
 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

**Signal word:** Warning**Pictograms:****Hazard statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

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H410 Very toxic to aquatic life with long lasting effects.

#### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.

#### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
868-77-9	2-hydroxyethyl methacrylate			25 - 50 %
	212-782-2	607-124-00-X		
	Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1; H319 H315 H317			
27813-02-1	Hydroxypropyl methacrylate (isomers mixture)			25 - 50 %
	248-666-3			
	Eye Irrit. 2, Skin Sens. 1; H319 H317			
5888-33-5	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate			10 - 25 %
	227-561-6			
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H315 H319 H317 H335 H400 H410			
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			< 1 %
	423-340-5	015-189-00-5		
	Skin Sens. 1, Aquatic Chronic 4; H317 H413			

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Remove contaminated, saturated clothing immediately.

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.  
If unconscious place in recovery position and seek medical advice.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Call a doctor if you feel unwell.

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

No information available.

### 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

Co-ordinate fire-fighting measures to the fire surroundings.  
Foam. Dry extinguishing powder. Carbon dioxide (CO2). Water spray jet. Sand

#### Unsuitable extinguishing media

Full water jet

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**5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>), Gases/vapours, toxic

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit  
Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7  
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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed. Ensure adequate ventilation of the storage area.

**Advice on storage compatibility**

No special measures are necessary.

**Further information on storage conditions**

Protect against direct sunlight.

**7.3. Specific end use(s)**

Adhesives, sealants

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Additional advice on limit values**

To date, no national critical limit values exist.

**8.2. Exposure controls**



**Appropriate engineering controls**

Do not breathe gas/fumes/vapour/spray.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Keep away from food, drink and animal feedingstuffs.

**Eye/face protection**

Suitable eye protection: goggles. (DIN EN 166)

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**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Wear suitable gloves. (DIN EN 374)

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. ( )

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid	
Colour:	colourless	
Odour:	characteristic	
		<b>Test method</b>
pH-Value (at 20 °C):		> 3
<b>Changes in the physical state</b>		
Melting point:		not determined
Initial boiling point and boiling range:		85 °C
Flash point:		> 100 °C
<b>Flammability</b>		
Solid:		not applicable
Gas:		not applicable
<b>Explosive properties</b>		
		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Ignition temperature:		320 °C
<b>Auto-ignition temperature</b>		
Solid:		not applicable
Gas:		not applicable
Decomposition temperature:		not determined
<b>Oxidizing properties</b>		
		Not oxidising.
Vapour pressure:		not determined
Vapour pressure: (at 20 °C)		0,3 hPa
Density (at 20 °C):		1,1 g/cm <sup>3</sup>
Water solubility:		partially miscible / Immiscible
<b>Solubility in other solvents</b>		
		not determined
Partition coefficient:		not determined
Vapour density:		not determined
Evaporation rate:		not determined

**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

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**10.4. Conditions to avoid**

Protect from sunlight.

**10.5. Incompatible materials**

Strong alkali, Strong acid

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name	Exposure route	Dose	Species	Source	Method
868-77-9	2-hydroxyethyl methacrylate	oral	LD50 5050 mg/kg	Rat		
27813-02-1	Hydroxypropyl methacrylate (isomers mixture)	inhalative	Data lacking			

**Irritation and corrosivity**

Causes skin irritation.  
Causes serious eye irritation.

**Sensitising effects**

May cause an allergic skin reaction. (2-hydroxyethyl methacrylate; Hydroxypropyl methacrylate (isomers mixture); Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause respiratory irritation. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate)

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**

**12.1. Toxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
868-77-9	2-hydroxyethyl methacrylate	Acute fish toxicity	LC50 227 mg/l	96 h	Pimephales promelas		

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
868-77-9	2-hydroxyethyl methacrylate	0,47

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Other adverse effects**

No information available.

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**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**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

**Contaminated packaging**

Non-contaminated packages may be recycled. 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.  
**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  
 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.  
**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.  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



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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.  
**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  
IATA-max. quantity - Cargo: 450 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: Marine pollutant

**14.6. Special precautions for user**

No transport classification available. Transport carrier not used.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No transport classification available. Transport carrier not used.

## SECTION 15: Regulatory information

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

Restrictions on use (REACH, annex XVII):  
Entry 3: 2-hydroxyethyl methacrylate

**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  
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

**15.2. Chemical safety assessment**

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

## SECTION 16: Other information

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

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**Relevant H and EUH statements (number and full text)**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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