

# Safety data sheet

according to Directive (EC) no. 1907/2006 and Directive (EU)  
no. 453/2010 (REACH)



Trading Name: Injection mortar VMU

Created on: 04.06.2018

Changed on: 01.08.2022

Number of pages: 11

## 1. Designation of the substance of the mixture and the company

Product identifier

Trading name: Injection mortar VMU

Article number: 3497806/3497803

Type: VMU plus 300/VMU plus 420

### 1.1 Relevant identified uses of the substance or mixture and uses advised against

#### Relevant identified uses

Fire protection material

Composite mortar for anchoring and fastening, component B (hardener)

#### Uses advised against

### 1.2 Manufacturer/supplier

OBO Bettermann Holding GmbH & Co. KG

P.O. Box 1120

58694 Menden

Germany

### 1.3 Division providing information

Customer Service

Tel.: +49 2373 89 - 1700

export@obo.de

### 1.4 Emergency telephone number

REACH Registration of Chemicals GmbH

Tel.: +49 (0)700 24112112 (OBO)

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

Hazard categories:

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

Causes serious eye irritation.

May cause an allergic skin reaction.

## 2.2 Label elements

### Regulation (EC) No. 1272/2008

#### Hazard components for labelling

Dibenzoyl peroxide

**Signal word:** Warning

#### Hazard pictograms



#### Hazard statements

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

#### Precautionary statements

P261 Avoid breathing vapours.

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container to an approved waste disposal plant in accordance with

## 2.3 Other hazards

No information available

## 3. Composition / information on ingredients

### 3.1 Mixtures

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
94-36-0	Dibenzoyl peroxide			5 - < 15 %
	202-327-6	617-008-00-0	01-2119511472-50	
	Org. Perox. B, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H241 H319 H317 H400 H410			

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

#### Specific concentration limits and M-factors

CAS No	EC No	Chemical name	Quantity
	Specific concentration limits and M-factors		
94-36-0	202-327-6	Dibenzoyl peroxide	5 - < 15 %
	M akut; H400: M=10 M chron.; H410: M=10		

#### Further information

The product has been tested for aquatic toxicity. The tests show no need for classification of the product

as toxic and harmful to aquatic life. Test reports are available

## 4. First aid measures

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### 4.1 Description of first aid measures

#### General information

First aider: Pay attention to self-protection! Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

#### Following inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### Following skin contact

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Following ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Medical treatment necessary.

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

May cause an allergic skin reaction.

Causes serious eye irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## 5. Firefighting measures

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### 5.1 Extinguishing media

#### Suitable extinguishing media

Foam

Extinguishing powder

Water spray jet

Carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

Full water jet

### 5.2 Special hazards arising from the substance or mixture

Pyrolysis products, toxic

Carbon monoxide

### 5.3 Advice for Firefighters

In case of fire and/or explosion do not breathe fumes.

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

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

## 6. Accidental release measures

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### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

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

Collect spillage. Take up mechanically, placing in appropriate containers for disposal. Suitable material for taking up: Sand  
 Treat the recovered material as prescribed in the section on waste disposal.  
 Retain contaminated washing water and dispose it.

**6.4 Reference to other sections**

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

**7. Handling and storage**

**7.1 Precautions for safe handling**

**Advices on safe handling**

Use only outdoors or in a well-ventilated area.  
 Wear personal protection equipment (refer to section 8).  
 Avoid contact with skin, eyes and clothes.  
 When using do not eat, drink or smoke.  
 Wash hands thoroughly after handling.  
 Take off contaminated clothing and wash it before reuse.

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

**Requirements for storerooms and containers**

Keep container tightly closed.  
 Store in a place accessible by authorized persons only.  
 Keep only in the original container in a cool, well-ventilated place.

**Hints on joint storage**

Do not store together with: Oxidising agent, strong  
 Do not use for products which come into contact with the food stuffs.

**Further information on storage conditions**

Keep container tightly closed in a cool place.  
 Storage temperature: 5 - 25°C

**7.3 Specific end use(s)**

Adhesive mortar for fastening elements A-component (resin)

**8. Exposure controls/personal protection**

**8.1 Control parameters**

**Exposure limits (EH40)**

CAS NO	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
94-36-0	Dibenzoyl peroxide	-	5		TWA (8h)	WEL

56-81-5	Glycerol, mist	-	10		TWA (8h)	WEL
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**DNEL/DMEL values**

CAS No.	Substance			
DNEL type	Exposure Route	Effect	Value	
94-36-0	Dibenzoyl peroxide			
Consumer, long-term	oral	systemic	2 mg/kg bw/day	
Worker DNEL, long-term	inhalation	systemic	13,3 mg/kg bw/day	
Worker DNEL, long-term	dermal	systemic	39 mg/m <sup>3</sup>	

**PNEC values**

CAS No.	Substance	
Environmental compartment	Value	
97-90-5	Ethylene dimethacrylate	
Freshwater	0,00002 mg/	
Marine water	0,000002 mg/l	
Freshwater sediment	0,013 mg/kg	
Marine sediment	0,001 mg/kg	

**Additional advice on limit values**

This mixture contains quartz filter which is firmly bound in the past component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

**8.2 Exposure controls****Appropriate engineering controls**

Provide adequate ventilation. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

**Protective and hygiene measures**

Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme. Wash hands thoroughly after handling. When using do not eat, drink or smoke.

**Eye/face protection**

Wear eye protection/face protection. Wear safety glasses.

**Hand protection**

Disposable gloves

Recommended material: NBR (Nitrile rubber)

Breakthrough time: > 480 min

Thickness of the glove material: > 0,2 mm

DIN-/EN-Norms: EN 374

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. Respiratory protection with combination filter A1P2 (organic gases/vapors and particles) recommended.

## 9. Physical and chemical properties

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### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state: solid (pasty)

Colour: black

Odour: characteristic

Odour threshold: no data available

pH value: not determined

#### Changes in physical state

Melting point: not determined

Initial boiling point and boiling range: not determined

Flash point: not applicable

#### Flammability

Solid: not determined

Gas: not applicable

Lower Explosion Limit: not determined

Upper Explosive Limit: not determined

#### Auto-ignition temperature

Solid: not determined

Gas: not applicable

Decomposition temperature: not determined

#### Oxidizing properties

not oxidising

Available oxygen content (%) < 1%

no classification

Vapour pressure: not determined

Density (at 20° C): 1,59 g/cm<sup>3</sup>

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

#### Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

### 9.2 Other information

Solid content: not determined

## 10. Stability and reactivity

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### 10.1 Reactivity

see section 10.3

### 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Oxidising agent

### 10.4 Conditions to avoid

see section 7.2

**10.5 Incompatible materials**

Oxidising agent, strong

**10.6 Hazardous decomposition products**Benzoic acid  
Benzene  
Biphenyl.**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
94-36-0	Dibenzoyl peroxide				
	oral	LD50 >5000 mg/kg	Rat		

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

May cause an allergic reaction. (Dibenzoyl peroxide)

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

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

**STOT-single exposure**

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

**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.

**Further information**

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

**12. Ecological information****12.1 Toxicity**

The product is not: Ecotoxic.

OECD 201 (Desmodesmus subspicatus)

IC10: (0-72h) = 30 mg/l

IC50: (0-72h) = 150 mg/l

OECD 202 (Daphnia magna)

EC0/NOEC (48h) = 100 mg/l

EC50 (48h) = &gt;500mg/l

EC100 (48h) =&gt;&gt;500mg/l

OECD 203 (Danio rerio)

LC0/NOEC : 250 mg/l

LC50: &gt; 500 mg/l

LC100: &gt;&gt;500mg/l

CAS No.	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
97-90-5	Ethylene dimethacrylate					
	Acute fish toxicity	LC50 0,0602 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203	
	Acute algae toxicity	ErC50 0,0711 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201	
	Acute crustacea toxicity	EC50 0,11 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
	Algae toxicity	NOEC 0,02 mg/l	3 d	Pseudokirchneriella subcapitata	OECD 201	
	Crustacea toxicity	NOEC 0,001 mg/l	21 d	Daphnia magna (Big water flea)	OECD 211	
	Acute bacteria toxicity	(35 mg/l)	0,5 h		OECD 209	

## 12.2 Persistence and degradability

This product has not been tested.

CAS No.	Chemical name				
	Method		Value	d	Source
	Evaluation				
94-36-0	Dibenzoyl peroxide				
	OECD 301D		71%	28	
	Readily biodegradable (according to OECD criteria).				

## 12.3 Bioaccumulative potential

This product has not been tested.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
94-36-0	Dibenzoyl peroxide	3,2

## 12.4 Mobility in soil

This product has not been tested.

## 12.5 Results of PBT and vPvB assessment

This product has not been tested.

## 12.6 Other adverse effects

No information available.

### Further information

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

## 13. Disposal considerations

### 13.1 Waste treatment methods

#### Disposal recommendations

Subsequent waste code numbers of the European Waste Catalogue are considered as recommendations. Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

#### List of Wastes Code - 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

**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

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## 14. Transport information

### 14.1 UN number

ADR/RID, ADN, IMDG, ICAO-TI/IATA-DGR: No dangerous good in sense of this transport regulation.

### 14.2 UN proper shipping name

ADR/RID, ADN, IMDG, ICAO-TI/IATA-DGR: No dangerous good in sense of this transport regulation.

### 14.3 Transport hazard class(es)

ADR/RID, ADN, IMDG, ICAO-TI/IATA-DGR: No dangerous good in sense of this transport regulation.

### 14.4 Packing group

ADR/RID, ADN, IMDG, ICAO-TI/IATA-DGR: No dangerous good in sense of this transport regulation.

### 14.5 Environmental hazards

ENVIRONMENTALLY HAZARDOUS. no

### 14.6 Special precautions for user

No information available.

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

not applicable

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## 15. Regulatory information

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

#### EU regulatory information

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

#### Additional information

VOC content: 4,3 % (DIN EN ISO 11890-2)

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

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## 16. Other information

### Department issuing data sheet

Technical documentation

**Changes**

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

**Abbreviations and acronyms**

- ADN: Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation  
(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
- ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- CAS: Chemical Abstracts Service
- CLP: Classification, Labeling and Packaging
- DMEL: Derived Minimal Effect level
- DNEL: Derived No Effect Level
- EC50: Effective concentration, 50%
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)
- ICAO: International Civil Aviation Organization
- IC50: Inhibitory concentration, 50%
- IMDG: International Maritime Code for Dangerous Goods
- LC50: Lethal concentration, 50%
- LD50: Lethal dose, 50%
- NOEC: No Observed Effect Concentration
- OECD: Organisation for Economic Co-operation and Development
- PBT: persistent, bioaccumulative and toxic
- vPvB: very persistent and very bioaccumulative
- PNEC: Predicted No Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)
- VOC: Volatile organic compound
- Aquatic Acute 1: Acute aquatic hazard, Category 1
- Aquatic Chronic 1: Long-term aquatic hazard, Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation, Category 2
- Skin Sens. 1: Skin sensitization, Category 1
- Org. Perox. B: Organic Peroxides, Type B

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

Classification	Classification procedure
Skin Sens. 1; H317	Calculation method
Eye Irrit. 2; H319	Calculation method

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

- H241 Heating may cause a fire or explosion.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

### **Further information**

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..