

## Declaration of performance

**Chemical reaction anchor VBA**

**valid for  
MÜPRO Chemical reaction anchor**

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DECLARATION OF PERFORMANCE  
DoP No. MKT- 440 - en

1. Unique identification code of the product-type: **MKT Chemical Anchor V**
2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):

**ETA-05/0231, Annex 2**  
**Batch number: see packaging of the product.**

3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:

<b>generic type</b>	bonded anchor
<b>for use in</b>	non-cracked concrete (EN 206)
<b>option</b>	8
<b>loading</b>	static or quasi-static
<b>material</b>	<u>zinc-plated steel:</u> dry internal conditions only covered sizes: M8, M10, M12, M16, M20, M24 <u>hot-dip galvanized steel:</u> dry internal conditions only covered sizes: M8, M10, M12, M16, M20, M24 <u>stainless steel (marking A4):</u> internal and external use without particular aggressive conditions covered sizes: M8, M10, M12, M16, M20, M24 <u>highly corrosion resistant steel (marking HCR):</u> internal and external use with particular aggressive conditions covered sizes: M8, M10, M12, M16, M20, M24
<b>temperature range</b> (if applicable)	-40°C - +80°C

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):

**MKT Metall-Kunststoff-Technik GmbH & Co. KG**  
**Auf dem Immel 2**  
**D - 67685 Weilerbach**

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2): --
6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V: **System 1**
7. In case of the declaration of performance concerning a construction product covered by a harmonised standard: --

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

issued **Deutsches Institut für Bautechnik, Berlin**  
 on the basis of **ETA-05/0231**  
**ETAG 001-05**

The notified body 0756-CPD performed under system 1:

- (i) determination of the product type on the basis of type testing (including sampling), type calculation, tabulated values or descriptive documentation of the product;
- (ii) initial inspection of the manufacturing plant and of factory production control;
- (iii) continuous surveillance, assessment and evaluation of factory production control.

and issued: Certificate of conformity 0756-CPD-0116

9. Declared performance:

Essential Characteristics	Design Method	Performance	Harmonized Technical Specification
characteristic resistance for tension	ETAG 001, Annex C	ETA-05/0231, Annex 5	ETAG 001
characteristic resistance for shear	ETAG 001, Annex C	ETA-05/0231, Annex 6	
minimum spacing and minimum edge distance	ETAG 001, Annex C	ETA-05/0231, Annex 4	
displacement for serviceability limit state	ETAG 001, Annex C	ETA-05/0231, Annex 5, 6	

Where pursuant to Article 37 or 38 in the Specific Technical Documentation has been used, the requirements with which the product complies: --

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

*L. Weustenhagen*  
**Lore Weustenhagen**  
 (General Manager)  
 Weilerbach, 30.06.2013

i.V. *Detlef Bigalke*  
**Dipl.-Ing. Detlef Bigalke**  
 (Head of product development)



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**SECTION 1: Identification of the substance / preparation and of the company**

**1.1 Product identifier**

**Glass Capsule V-P, Dimensions M8 up to M10**

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

**1.2.1 Relevant uses**

See product information.

**1.2.2 Uses advised against**

None known.

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

**Company**

MKT Metall-Kunststoff-Technik GmbH & Co. KG

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67685 Weilerbach / GERMANY  
Phone +49(0)6374-91 16-0  
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E-mail [info@mkt-duebel.de](mailto:info@mkt-duebel.de)

**Address enquiries to**

**Technical information**

[info@mkt-duebel.de](mailto:info@mkt-duebel.de)

**Safety Data Sheet**

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

**1.4 Emergency phone**

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

see SECTION 16

**2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC**

**Hazard symbols**



Irritant

**R-phrases**

R 10: Flammable.

R 43: May cause sensitisation by skin contact.

The product is classified and required to be labelled in accordance with EC-Directives

**2.2 Label elements**

**Labelling according to Regulation 67/548/EEC or 1999/45/EC**

**Hazard symbols**



Irritant

**Contains:**

Dibenzoyl peroxide

**R-phrases**

R 10: Flammable.

R 43: May cause sensitisation by skin contact.

**S-phrases**

S 3/7: Keep container tightly closed in a cool place.

S 36/37: Wear suitable protective clothing and gloves.

S 60: This material and its container must be disposed of as hazardous waste.

**2.3 Other hazards**

**Other hazards**

No particular hazards known.



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### SECTION 3: Composition / Information on ingredients

#### 3.1 Product-type:

The product is a mixture.

Range [%]	Substance
1 - <10	Styrene CAS: 100-42-5, EINECS/ELINCS: 202-851-5, EU-INDEX: 601-026-00-0, ECB-Nr.: 01-2119457861-32 GHS/CLP: Acute Tox. 4 - H332 - Skin Irrit. 2 - H315 - Eye Irrit. 2 - H319 - STOT SE 3 - H335 - STOT RE 1 - H372 - Asp. Tox 1 - H304 EEC: Xn, R 20-48/20-65-36/37/38
1 - <2,5	Dibenzoyl peroxide CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0, ECB-Nr.: 01-2119511472-50 GHS/CLP: Org. Perox. B - H241 - Eye Irrit. 2 - H319 - Skin Sens. 1 - H317 - Aquatic Acute 1 - H400 EEC: E-Xi-N, R 3-36-43-50

#### Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For the wording of the listed risk phrases refer to SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Change soaked clothing.  
Measures are only valid for damaged cells.

##### Inhalation

Ensure supply of fresh air.  
In the event of symptoms seek for medical treatment.

##### Skin contact

In case of contact with skin wash off immediately with soap and water.  
Consult a doctor if skin irritation persists.

##### Eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

##### Ingestion

not applicable

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

No informations available.

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

Treat symptomatically.  
Forward this sheet to the doctor.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray jet.  
Dry powder.  
Foam.

##### Extinguishing media that must not be used

Full water jet.

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

Carbon monoxide (CO).  
Nitrogen oxides (NOx).  
Unknown risk of formation of toxic pyrolysis products.

#### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.  
Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

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## SECTION 6: Accidental release measures

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

Keep away from all sources of ignition.  
Use personal protective clothing.

### 6.2 Environmental precautions

not applicable

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

Take up mechanically.  
Take up residues with absorbent material (e.g. sand, sawdust, generalpurpose binder, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handle with care - avoid shock, friction and impact.  
Keep away from all sources of ignition - Refrain from smoking.

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

Prevent penetration into the ground.  
Do not store together with oxidizing agents.  
Keep in a cool place.  
Do not keep at temperatures above 25 °C.  
Protect from heat/overheating.  
Protect from sun.

### 7.3 Specific end use(s)

See product use, SECTION 1.2



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

**8.1 Control parameters**

**Ingredients with occupational exposure limits to be monitored (GB)**

Range [%]	Substance
1 - <2,5	Dibenzoyl peroxide
	CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0, ECB-Nr.: 01-2119511472-50
	Long-term exposure: 5 mg/m <sup>3</sup>
1 - <10	Styrene
	CAS: 100-42-5, EINECS/ELINCS: 202-851-5, EU-INDEX: 601-026-00-0, ECB-Nr.: 01-2119457861-32
	Long-term exposure: 100 ppm, 430 mg/m <sup>3</sup> Short-term exposure (15-minute): 250 ppm, 1080 mg/m <sup>3</sup>

**DNEL**

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5
	worker, inhalative, Acute - systemic effects: 289 mg/m <sup>3</sup> .
	general population, inhalative, Acute - systemic effects: 174,25 mg/m <sup>3</sup> .
	general population, inhalative, Acute - local effects: 182,75 mg/m <sup>3</sup> .
	general population, inhalative, Long-term - systemic effects: 10,2 mg/m <sup>3</sup> .
	worker, inhalative, Acute - local effects: 306 mg/m <sup>3</sup> .
	worker, inhalative, Long-term - systemic effects: 85 mg/m <sup>3</sup> .
1 - <2,5	Dibenzoyl peroxide, CAS: 94-36-0
	general population, oral, Long-term - systemic effects: 1,65 mg/kg bw/d.
	Industrial, inhalative, Long-term - systemic effects: 11,75 mg/m <sup>3</sup> .
	general population, inhalative, Long-term - systemic effects: 2,9 mg/m <sup>3</sup> .
	Industrial, dermal, Long-term - systemic effects: 6,6 mg/kg bw/d. general population, dermal, Long-term - systemic effects: 3,3 mg/kg bw/d.

**PNEC**

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5
	sediment (fresh water), 0,614 mg/kg dw.
	soil, 0,2 mg/kg dw.
	sediment (marine water), 0,0614 mg/kg dw.
	marine water, 0,0028 mg/l.
	fresh water, 0,028 mg/l.
	sewage treatment plants (STP), 5 mg/l.
1 - <2,5	Dibenzoyl peroxide, CAS: 94-36-0
	marine water, 0,000602 mg/l.
	fresh water, 0,000602 mg/l.
	sewage treatment plants (STP), 0,35 mg/l.
	oral (food), 6,67 mg/kg dw.
	sediment (fresh water), 0,338 mg/kg dw.
	soil, 0,0758 mg/kg dw.

## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact butyl rubber, > 120 min (EN 374)
<b>Skin protection</b>	Light protective clothing.
<b>Other</b>	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier.  Do not eat, drink, smoke or take drugs at work. Wash hands before breaks and after work. Use barrier skin cream.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter A.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	See SECTION 6+7.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	capsule
<b>Color</b>	not applicable
<b>Odor</b>	not applicable
<b>Odour threshold</b>	not determined
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	not determined
<b>Flash point [°C]</b>	33 (resin)
<b>Flammability [°C]</b>	not determined
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidizing properties</b>	not applicable
<b>Vapour pressure/gas pressure [kPa]</b>	not determined
<b>Density [g/ml]</b>	not applicable
<b>Bulk density [kg/m<sup>3</sup>]</b>	not applicable
<b>Solubility in water</b>	insoluble
<b>Partition coefficient [n-octanol/water]</b>	not determined
<b>Viscosity</b>	390 - 490 mPas (resin)
<b>Relative vapour density determined in air</b>	not determined
<b>Evaporation speed</b>	not determined
<b>Melting point [°C]</b>	not determined
<b>Autoignition temperature [°C]</b>	not determined
<b>Decomposition temperature</b>	not determined

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See SECTION 10.3.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

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### 10.3 Possibility of hazardous reactions

Polymerisation with evolution of heat.

### 10.4 Conditions to avoid

See SECTION 7.2.

Strong heating.

### 10.5 Incompatible materials

Decomposition with water, acids and alkalis.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5
	LC50, inhalative, Rat: 12 g/m <sup>3</sup> /4h.
	LD50, dermal, Rat: > 2000 mg/kg.
	LD50, oral, Rat: 5000 mg/kg.
1 - <2,5	Dibenzoyl peroxide, CAS: 94-36-0
	LD50, oral, Rat: >5000 mg/kg (78%).
	LC50, inhalative, Rat: >24300 mg/m <sup>3</sup> dust (78%).

Serious eye damage/irritation	not determined
Skin corrosion/irritation	not determined
Respiratory or skin sensitisation	not determined
Specific target organ toxicity — single exposure	not determined
Specific target organ toxicity — repeated exposure	not determined
Mutagenicity	not determined
Reproduction toxicity	not determined
Carcinogenicity	not determined
General remarks	

The product was classified on the basis of the calculation procedure of the preparation directive.

Toxicological data of complete product are not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5
	EC50, (72h), Algae: 4,9 mg/l.
	LC50, (96h), fish: 4,02 mg/l.
	EC50, (48h), Daphnia magna: 4,7 mg/l.
	NOEC, (21d), Daphnia magna: 1,01 mg/l.
1 - <2,5	Dibenzoyl peroxide, CAS: 94-36-0
	EC50, (72h), Algae: 0,06 mg/l (78%).
	EC50, (48h), Daphnia magna: 0,11 mg/l (78%).
	LC50, (96h), fish: 0,06 mg/l (78%). M=10

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## 12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not applicable
Biological degradability	not applicable

## 12.3 Bioaccumulative potential

No informations available.

## 12.4 Mobility in soil

No informations available.

## 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

## 12.6 Other adverse effects

Ecological data of complete product are not available.  
Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Dispose of as hazardous waste.

#### Waste no. (recommended)

080411\*

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of as for product.

#### Waste no. (recommended)

150110\*

## SECTION 14: Transport information

### 14.1 UN number

See SECTION14.2 in accordance with UN shipping name

### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS, ACCORDING ADR 2.2.3.1.5 TO MAX. 450 L

Inland navigation (ADN) NO DANGEROUS GOODS, ACCORDING ADR 2.2.3.1.5 TO MAX. 450 L

Marine transport in accordance with IMDG NO DANGEROUS GOODS, ACCORDING IMDG 2.3.2.5 TO MAX. 30 L (SEE 5.4.1.5.10) - "TRANSPORT IN COMPLIANCE WITH 2.3.2.5 OF THE IMDG CODE"

Air transport in accordance with IATA UN 1866 Resin solution 3 III  
- Label



### 14.3 Transport hazard class(es)

See SECTION14.2 in accordance with UN shipping name

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#### 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

#### 14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

### SECTION 15: Regulatory information

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

EEC-REGULATIONS	1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2011); IMDG-Code (2011, 35. Amdt.); IATA-DGR (2012).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits with amendments October 2007. CHIP 3/ CHIP 4

#### 15.2 Chemical safety assessment

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

### SECTION 16: Other informations

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

Hazard pictograms



Signal word

WARNING

Flam. Liq. 3 - H226 Flammable liquid and vapour.  
Skin Sens. 1 - H317 May cause an allergic skin reaction.

Classification procedure

Classification according to conversion table Annex VII 1272/2008/EC

#### 16.2 R-phrases (SECTION 03)

R 20: Harmful by inhalation.  
R 48/20: Harmful - danger of serious damage to health by prolonged exposure through inhalation.  
R 65: Harmful - may cause lung damage if swallowed.  
R 36/37/38: Irritating to eyes, respiratory system and skin.  
R 3: Extreme risk of explosion by shock, friction, fire or other sources of ignition.  
R 36: Irritating to eyes.  
R 43: May cause sensitisation by skin contact.  
R 50: Very toxic to aquatic organisms.

#### 16.3 Hazard statements (SECTION 03)

H332 Harmful if inhaled.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H304 May be fatal if swallowed and enters airways.  
H241 Heating may cause a fire or explosion.  
H317 May cause an allergic skin reaction.  
H400 Very toxic to aquatic life.

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#### 16.4 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

Modified position none

#### 16.5 Other informations

Observe employment restrictions for people yes  
VOC (1999/13/CE) not applicable  
Customs Tariff not determined

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**SECTION 1: Identification of the substance / preparation and of the company**

**1.1 Product identifier**

**Glass Capsule V-P, Dimensions M12 up to M30**

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

**1.2.1 Relevant uses**

Mounting material

**1.2.2 Uses advised against**

None known.

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

**Company** MKT Metall-Kunststoff-Technik GmbH & Co. KG  
Auf dem Immel 2  
67685 Weilerbach / GERMANY  
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E-mail [info@mkt-duebel.de](mailto:info@mkt-duebel.de)

**Address enquiries to**

**Technical information** [info@mkt-duebel.de](mailto:info@mkt-duebel.de)  
**Safety Data Sheet** [sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

**1.4 Emergency phone**

**Advisory body** +49 (0)89-19240 (24h) (english)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

see SECTION 16

**2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC**

**Hazard symbols** none

**R-phrases** R 10: Flammable.

The product is classified and required to be labelled in accordance with EC-Directives

**2.2 Label elements**

**Labelling according to Regulation 67/548/EEC or 1999/45/EC**

**Hazard symbols** none

**R-phrases** R 10: Flammable.

**S-phrases** S 3/7: Keep container tightly closed in a cool place.

S 60: This material and its container must be disposed of as hazardous waste.

**Special labelling** Contains: Dibenzoyl peroxide. May produce an allergic reaction.

**2.3 Other hazards**

**Other hazards** No particular hazards known.

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### SECTION 3: Composition / Information on ingredients

#### 3.1 Product-type:

The product is a mixture.

Range [%]	Substance
1 - <10	Styrene CAS: 100-42-5, EINECS/ELINCS: 202-851-5, EU-INDEX: 601-026-00-0, ECB-Nr.: 01-2119457861-32 GHS/CLP: Acute Tox. 4 - H332 - Skin Irrit. 2 - H315 - Eye Irrit. 2 - H319 - STOT SE 3 - H335 - STOT RE 1 - H372 - Asp. Tox 1 - H304 EEC: Xn, R 20-48/20-65-36/37/38
0,1 - <1	Dibenzoyl peroxide CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0, ECB-Nr.: 01-2119511472-50 GHS/CLP: Org. Perox. B - H241 - Eye Irrit. 2 - H319 - Skin Sens. 1 - H317 - Aquatic Acute 1 - H400 EEC: E-Xi-N, R 3-36-43-50

#### Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For the wording of the listed risk phrases refer to SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Change soaked clothing.

##### Inhalation

Ensure supply of fresh air.  
In the event of symptoms seek for medical treatment.

##### Skin contact

In case of contact with skin wash off immediately with soap and water.  
Consult a doctor if skin irritation persists.

##### Eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

##### Ingestion

not applicable

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

No informations available.

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

Treat symptomatically.  
Forward this sheet to the doctor.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water spray jet.  
Dry powder.  
Foam.

##### Extinguishing media that must not be used

Full water jet.

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

Carbon monoxide (CO).  
Nitrogen oxides (NOx).  
Unknown risk of formation of toxic pyrolysis products.

#### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.  
Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

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## SECTION 6: Accidental release measures

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

Keep away from all sources of ignition.  
Use personal protective clothing.

### 6.2 Environmental precautions

not applicable

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

Take up mechanically.  
Take up residues with absorbent material (e.g. sand, sawdust, generalpurpose binder, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handle with care - avoid shock, friction and impact.  
Keep away from all sources of ignition - Refrain from smoking.

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

Prevent penetration into the ground.  
Do not store together with oxidizing agents.  
Keep in a cool place.  
Do not keep at temperatures above 25 °C.  
Protect from heat/overheating.  
Protect from sun.

### 7.3 Specific end use(s)

See product use, SECTION 1.2

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

**8.1 Control parameters**

**Ingredients with occupational exposure limits to be monitored (GB)**

Range [%]	Substance
1 - <10	Styrene CAS: 100-42-5, EINECS/ELINCS: 202-851-5, EU-INDEX: 601-026-00-0, ECB-Nr.: 01-2119457861-32 Long-term exposure: 100 ppm, 430 mg/m <sup>3</sup> Short-term exposure (15-minute): 250 ppm, 1080 mg/m <sup>3</sup>
0,1 - <1	Dibenzoyl peroxide CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0, ECB-Nr.: 01-2119511472-50 Long-term exposure: 5 mg/m <sup>3</sup>

**DNEL**

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5 worker, inhalative, Acute - systemic effects: 289 mg/m <sup>3</sup> . general population, inhalative, Acute - systemic effects: 174,25 mg/m <sup>3</sup> . general population, inhalative, Acute - local effects: 182,75 mg/m <sup>3</sup> . general population, inhalative, Long-term - systemic effects: 10,2 mg/m <sup>3</sup> . worker, inhalative, Acute - local effects: 306 mg/m <sup>3</sup> . worker, inhalative, Long-term - systemic effects: 85 mg/m <sup>3</sup> .
0,1 - <1	Dibenzoyl peroxide, CAS: 94-36-0 general population, oral, Long-term - systemic effects: 1,65 mg/kg bw/d. Industrial, inhalative, Long-term - systemic effects: 11,75 mg/m <sup>3</sup> . general population, inhalative, Long-term - systemic effects: 2,9 mg/m <sup>3</sup> . Industrial, dermal, Long-term - systemic effects: 6,6 mg/kg bw/d. general population, dermal, Long-term - systemic effects: 3,3 mg/kg bw/d.

**PNEC**

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5 sediment (fresh water), 0,614 mg/kg dw. soil, 0,2 mg/kg dw. sediment (marine water), 0,0614 mg/kg dw. marine water, 0,0028 mg/l. fresh water, 0,028 mg/l. sewage treatment plants (STP), 5 mg/l.
0,1 - <1	Dibenzoyl peroxide, CAS: 94-36-0 marine water, 0,0000602 mg/l. fresh water, 0,000602 mg/l. sewage treatment plants (STP), 0,35 mg/l. oral (food), 6,67 mg/kg dw. sediment (fresh water), 0,338 mg/kg dw. soil, 0,0758 mg/kg dw.

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## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact butyl rubber, > 120 min (EN 374)
<b>Skin protection</b>	Light protective clothing.
<b>Other</b>	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier.  Do not eat, drink, smoke or take drugs at work. Wash hands before breaks and after work. Use barrier skin cream.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter A.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	See SECTION 6+7.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	capsule
<b>Color</b>	not applicable
<b>Odor</b>	not applicable
<b>Odour threshold</b>	not determined
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	not determined
<b>Flash point [°C]</b>	33 (resin)
<b>Flammability [°C]</b>	not determined
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidizing properties</b>	not applicable
<b>Vapour pressure/gas pressure [kPa]</b>	not determined
<b>Density [g/ml]</b>	not applicable
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	insoluble
<b>Partition coefficient [n-octanol/water]</b>	not determined
<b>Viscosity</b>	390 - 490 mPas (resin)
<b>Relative vapour density determined in air</b>	not determined
<b>Evaporation speed</b>	not determined
<b>Melting point [°C]</b>	not determined
<b>Autoignition temperature [°C]</b>	not determined
<b>Decomposition temperature</b>	not determined

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See SECTION 10.3.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

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### 10.3 Possibility of hazardous reactions

Polymerisation with evolution of heat.

### 10.4 Conditions to avoid

See SECTION 7.2.  
Strong heating.

### 10.5 Incompatible materials

Decomposition with water, acids and alkalis.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5
	LC50, inhalative, Rat: 12 g/m <sup>3</sup> /4h.
	LD50, dermal, Rat: > 2000 mg/kg.
	LD50, oral, Rat: 5000 mg/kg.
0,1 - <1	Dibenzoyl peroxide, CAS: 94-36-0
	LD50, oral, Rat: >5000 mg/kg (78%).
	LC50, inhalative, Rat: >24300 mg/m <sup>3</sup> dust (78%).

Serious eye damage/irritation	not determined
Skin corrosion/irritation	not determined
Respiratory or skin sensitisation	not determined
Specific target organ toxicity — single exposure	not determined
Specific target organ toxicity — repeated exposure	not determined
Mutagenicity	not determined
Reproduction toxicity	not determined
Carcinogenicity	not determined
General remarks	

The product was classified on the basis of the calculation procedure of the preparation directive.  
Toxicological data of complete product are not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Range [%]	Substance
1 - <10	Styrene, CAS: 100-42-5
	EC50, (72h), Algae: 4,9 mg/l.
	LC50, (96h), fish: 4,02 mg/l.
	EC50, (48h), Daphnia magna: 4,7 mg/l.
	NOEC, (21d), Daphnia magna: 1,01 mg/l.
0,1 - <1	Dibenzoyl peroxide, CAS: 94-36-0
	EC50, (72h), Algae: 0,06 mg/l (78%).
	EC50, (48h), Daphnia magna: 0,11 mg/l (78%).
	LC50, (96h), fish: 0,06 mg/l (78%). M=10

## 12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not applicable
Biological degradability	not applicable

## 12.3 Bioaccumulative potential

No informations available.

## 12.4 Mobility in soil

No informations available.

## 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

## 12.6 Other adverse effects

Ecological data of complete product are not available.  
Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Dispose of as hazardous waste.

#### Waste no. (recommended)

080411\*

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of as for product.

#### Waste no. (recommended)

150110\*

## SECTION 14: Transport information

### 14.1 UN number

See SECTION14.2 in accordance with UN shipping name

### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS, ACCORDING ADR 2.2.3.1.5 TO MAX. 450 L

Inland navigation (ADN) NO DANGEROUS GOODS, ACCORDING ADR 2.2.3.1.5 TO MAX. 450 L

Marine transport in accordance with IMDG NO DANGEROUS GOODS, ACCORDING IMDG 2.3.2.5 TO MAX. 30 L (SEE 5.4.1.5.10) - "TRANSPORT IN COMPLIANCE WITH 2.3.2.5 OF THE IMDG CODE"

Air transport in accordance with IATA UN 1866 Resin solution 3 III

- Label



### 14.3 Transport hazard class(es)

See SECTION14.2 in accordance with UN shipping name

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#### 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

#### 14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

### SECTION 15: Regulatory information

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

EEC-REGULATIONS	1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2011); IMDG-Code (2011, 35. Amdt.); IATA-DGR (2012).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits with amendments October 2007. CHIP 3/ CHIP 4

#### 15.2 Chemical safety assessment

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

### SECTION 16: Other information

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

Hazard pictograms



Signal word

WARNING

Flam. Liq. 3 - H226 Flammable liquid and vapour.  
- - EUH 208 May produce an allergic reaction.

Classification procedure

Classification according to conversion table Annex VII 1272/2008/EC

#### 16.2 R-phrases (SECTION 03)

R 20: Harmful by inhalation.  
R 48/20: Harmful - danger of serious damage to health by prolonged exposure through inhalation.  
R 65: Harmful - may cause lung damage if swallowed.  
R 36/37/38: Irritating to eyes, respiratory system and skin.  
R 3: Extreme risk of explosion by shock, friction, fire or other sources of ignition.  
R 36: Irritating to eyes.  
R 43: May cause sensitisation by skin contact.  
R 50: Very toxic to aquatic organisms.

#### 16.3 Hazard statements (SECTION 03)

H332 Harmful if inhaled.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H304 May be fatal if swallowed and enters airways.  
H241 Heating may cause a fire or explosion.  
H317 May cause an allergic skin reaction.  
H400 Very toxic to aquatic life.

#### 16.4 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
TLV@TWA = Threshold limit value – time-weighted average  
TLV@STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

Modified position

none

#### 16.5 Other informations

Observe employment restrictions for people	yes
VOC (1999/13/CE)	not applicable
Customs Tariff	not determined

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