

**Apolo MEA Befestigungssysteme GmbH**  
86551 Aichach

Date printed 10.07.2015, Revision 25.03.2014

Version 03. Supersedes version: 02

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**ResiFIX Vinylester VYSF, Comp. A**

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

#### 1.2.1 Relevant uses

Adhesive mortar for fastening to concrete elements A-Component (Resin)

#### 1.2.2 Uses advised against

None known.

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

**Company** Apolo MEA Befestigungssysteme GmbH  
Industriestr. 6  
86551 Aichach / GERMANY  
Phone +49 (0) 8251 90 485 0  
Fax +49 (0)8251 90 485 - 49  
E-mail info@apolofixing.com

#### Address enquiries to

**Technical information** info@apolofixing.com

**Safety Data Sheet** info@apolofixing.com

### 1.4 Emergency telephone number

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

STOT SE 3: H335 May cause respiratory irritation.  
Skin Sens. 1: H317 May cause an allergic skin reaction.

### 2.2 Label elements

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

#### Hazard pictograms



**Signal word** WARNING

**Contains:** Ethylene dimethacrylate

Methacrylic acid, monoester with Propan-1,2-diole

**Hazard statements** H335 May cause respiratory irritation.

H317 May cause an allergic skin reaction.

#### Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P261 Avoid breathing vapours.

P280 Wear protective gloves.

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

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents / container to in accordance with local / regional / national / international regulation.

### 2.3 Other hazards

#### Human health dangers

Persons already sensitised to methacrylates may develop allergic reactions when using this product.

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

Further hazards were not determined with the current level of knowledge.

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### SECTION 3: Composition / Information on ingredients

#### Product-type:

The product is a mixture.

Range [%]	Substance
10 - <20	Ethylene dimethacrylate CAS: 97-90-5, EINECS/ELINCS: 202-617-2, EU-INDEX: 607-114-00-5 GHS/CLP: STOT SE 3: H335 - Skin Sens. 1: H317
1 - <10	Methacrylic acid, monoester with Propan-1,2-diole CAS: 27813-02-1, EINECS/ELINCS: 248-666-3 GHS/CLP: Eye Irrit. 2: H319 - Skin Sens. 1: H317
0,1 - <1	1,1'-(p-Tolylimino)dipropan-2-ol CAS: 38668-48-3, EINECS/ELINCS: 254-075-1 GHS/CLP: Acute Tox. 2: H300 - Eye Dam. 1: H318 - Aquatic Chronic 3: H412
1 - <5	Quartz (< 10µm) CAS: 14808-60-7, EINECS/ELINCS: 238-878-4 GHS/CLP: STOT RE 1: H372

#### Comment on component parts

The quartz in this preparation is not available on foreseeable use.  
Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For full text of H-statements: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Take off contaminated clothing and wash before reuse.

##### Inhalation

Ensure supply of fresh air.  
In the event of symptoms seek 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

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

##### Ingestion

Supply with medical care.  
Rinse out mouth and give plenty of water to drink.

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

Irritant effects  
Allergic reactions

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

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Carbon dioxide.  
Dry powder.  
Water spray jet.

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

Full water jet  
Foam.

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

In the event of fire the following can be released:  
Carbon monoxide (CO)

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### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.

Use self-contained breathing apparatus.

Fire residues must be disposed of in accordance within the local regulations.

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation.

Use personal protective equipment.

High risk of slipping due to leakage/spillage of product.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

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

Take up mechanically.

Take up residues with absorbent material (e.g. sand, sawdust, general purpose 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

Use only in well-ventilated areas.

Take off contaminated clothing and wash before reuse.

Do not eat, drink, smoke or take drugs at work.

Wash hands before breaks and after work.

Use barrier skin cream.

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

Keep only in original container.

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Keep container in a well-ventilated place.

Keep container tightly closed.

Keep in a cool place. Store in a dry place.

Protect from atmospheric moisture and water.

Store in a dark place.

Recommended storage temperature: 5 - 25 °C

### 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 - <5	Quartz (< 10µm)
	CAS: 14808-60-7, EINECS/ELINCS: 238-878-4
	Long-term exposure: 0,15 mg/m <sup>3</sup> , HSE, NIOSH, OSHA

### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Tightly fitting goggles.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. Nitrile rubber, >480 min (EN 374).
<b>Skin protection</b>	Protective clothing.
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, combination filter A-P2.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	pasty
Color	light beige
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidizing properties	not determined
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,52 - 1,68 (23°C / 73,4°F)
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	insoluble
Partition coefficient [n-octanol/water]	not determined
Viscosity	not determined
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined

### 9.2 Other information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

### 10.4 Conditions to avoid

See SECTION 7.2.

### 10.5 Incompatible materials

Strong oxidizing agent.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
ATE-mix, oral, Rat: 2000 - 5000 mg/kg.

Range [%]	Substance
10 - <20	Ethylene dimethacrylate, CAS: 97-90-5 LD50, oral, Rat: 3300 mg/kg (RTECS).
1 - <10	Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1 LD50, dermal, Rabbit: > 5000 mg/kg (IUCLID). LD50, oral, Rat: > 4000 mg/kg (IUCLID).
0,1 - <1	1,1'-(p-Tolylimino)dipropan-2-ol, CAS: 38668-48-3 LD50, oral, Rat: 27,5 mg/kg.

**Serious eye damage/irritation** not determined

**Skin corrosion/irritation** not determined

**Respiratory or skin sensitisation** Sensitizing.

**Specific target organ toxicity — single exposure** not determined

**Specific target organ toxicity — repeated exposure** not determined

**Mutagenicity** There is no evidence of any mutagenic effects.

**Reproduction toxicity** There is no evidence of any reproductive toxicity effects.

**Carcinogenicity** There is no evidence of any carcinogenic effects.

#### 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
10 - <20	Ethylene dimethacrylate, CAS: 97-90-5 LC50, (96h), Danio rerio: 15,95 mg/l (OECD 203). EC50, (3h), Pseudomonas putida: 570 mg/l (OECD 209).
1 - <10	Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1 LC50, (48h), Leuciscus idus: 493 mg/L (IUCLID). EC10, (16h), Pseudomonas putida: 1140 mg/l (IUCLID).
0,1 - <1	1,1'-(p-Tolylimino)dipropan-2-ol, CAS: 38668-48-3 LC50, (96h), fish: 17 mg/l. EC50, (48h), Daphnia magna: 28,8 mg/l.

### 12.2 Persistence and degradability

**Behaviour in environment compartments** not determined

**Behaviour in sewage plant** not determined

**Biological degradability** not determined

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### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information 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

No classification on the basis of the calculation procedure of the preparation directive.

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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

Coordinate disposal with the disposal contractor/authorities if necessary.

#### Waste no. (recommended)

080409\*

#### 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\*  
150102

## SECTION 14: Transport information

### 14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

### 14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

### 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

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#### 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 and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

<b>EEC-REGULATIONS</b>	1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830
<b>TRANSPORT-REGULATIONS</b>	DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).
<b>NATIONAL REGULATIONS (GB):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for young people.
- VOC (1999/13/CE)	0 %

#### 15.2 Chemical safety assessment

not applicable

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 3)

H372 Causes damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.  
H318 Causes serious eye damage.  
H300 Fatal if swallowed.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.



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## 16.2 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

## 16.3 Other information

### Classification procedure

STOT SE 3: H335 May cause respiratory irritation. (Calculation method)  
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)

### Modified position

SECTION 3 been added: Quartz (< 10µm)  
SECTION 2 been added: The product is classified and required to be labelled in accordance with EC-Directives  
SECTION 3 been added: The quartz in this preparation is not available on foreseeable use.  
SECTION 4 been added: Take off contaminated clothing and wash before reuse.  
SECTION 4 deleted: Change soaked clothing immediately.  
SECTION 5 deleted: Risk of formation of toxic pyrolysis products.  
SECTION 5 been added: In the event of fire the following can be released:  
SECTION 7 been added: Take off contaminated clothing and wash before reuse.  
SECTION 8 been added: Protect the environment by applying appropriate control measures to prevent or limit emissions.  
SECTION 8 deleted: See SECTION 6+7.  
SECTION 16 deleted: Observe employment restrictions for mothers-to-be and nursing mothers.  
SECTION 16 been added: Calculation method

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**ResiFIX Vinylester VYSF, Comp. B**

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

#### 1.2.1 Relevant uses

Adhesive mortar for fastening to concrete elements B-Component (Hardener)

#### 1.2.2 Uses advised against

None known.

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

**Company** Apolo MEA Befestigungssysteme GmbH  
Industriestr. 6  
86551 Aichach / GERMANY  
Phone +49 (0) 8251 90 485 0  
Fax +49 (0)8251 90 485 - 49  
E-mail info@apolofixing.com

#### Address enquiries to

**Technical information** info@apolofixing.com

**Safety Data Sheet** info@apolofixing.com

### 1.4 Emergency telephone number

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Skin Sens. 1: H317 May cause an allergic skin reaction.  
Eye Irrit. 2: H319 Causes serious eye irritation.

### 2.2 Label elements

The product is required to be labelled in accordance with GHS/CLP-Directives.

#### Hazard pictograms



#### Signal word

WARNING

#### Contains:

Dibenzoyl peroxide

#### Hazard statements

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

#### Precautionary statements

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P261 Avoid breathing vapours.  
P280 Wear protective gloves / eye protection / face protection.  
P363 Wash contaminated clothing before reuse.  
P501 Dispose of contents / container to in accordance with local / regional / national / international regulation.

### 2.3 Other hazards

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

Further hazards were not determined with the current level of knowledge.

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### SECTION 3: Composition / Information on ingredients

#### Product-type:

The product is a mixture.

Range [%]	Substance
1 - <20	Dibenzoyl peroxide CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0, ECB-Nr.: 01-2119511472-50-XXXX GHS/CLP: Org. Perox. B: H241 - Eye Irrit. 2: H319 - Skin Sens. 1: H317 - Aquatic Acute 1: H400, M = 10
1 - <5	Reaction mass of Diethylene glycole dibenzoate, Dipropylene glycole dibenzoate and Triethylene glycol dibenzoate ECB-Nr.: 01-2119535193-44-XXXX
1 - <5	2-Ethylhexyl benzoate CAS: 5444-75-7, EINECS/ELINCS: 226-641-8 GHS/CLP: Aquatic Chronic 4: H413
1 - <5	Quartz (< 10µm) CAS: 14808-60-7, EINECS/ELINCS: 238-878-4 GHS/CLP: STOT RE 1: H372

#### Comment on component parts

The quartz in this preparation is not available on foreseeable use.  
Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For full text of H-statements: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Take off contaminated clothing and wash before reuse.

##### Inhalation

Ensure supply of fresh air.  
In the event of symptoms seek 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

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

##### Ingestion

Supply with medical care.  
Rinse out mouth and give plenty of water to drink.

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

Allergic reactions  
Irritant effects

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

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Carbon dioxide.  
Dry powder.  
Water spray jet.

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

Full water jet  
Foam.

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

In the event of fire the following can be released:  
Carbon monoxide (CO)

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### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.  
Use self-contained breathing apparatus.  
Fire residues must be disposed of in accordance within the local regulations.

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation.  
Use personal protective equipment.  
High risk of slipping due to leakage/spillage of product.  
Keep away from all sources of ignition.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.  
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

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

Take up mechanically.  
Take up residues with absorbent material (e.g. sand, sawdust, general purpose 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

Use only in well-ventilated areas.  
Keep away from all sources of ignition - Refrain from smoking.  
Take off contaminated clothing and wash before reuse.  
Do not eat, drink, smoke or take drugs at work.  
Wash hands before breaks and after work.  
Use barrier skin cream.

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

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with food and animal food/diet.  
Keep container in a well-ventilated place.  
Keep container tightly closed.  
Keep in a cool place. Store in a dry place.  
Store in a dark place.  
Protect from atmospheric moisture and water.  
Recommended storage temperature: 5 °C - +25 °C

### 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 - <5	Quartz (< 10µm)
	CAS: 14808-60-7, EINECS/ELINCS: 238-878-4
	Long-term exposure: 0,15 mg/m <sup>3</sup> , HSE, NIOSH, OSHA
1 - <20	Glycerol
	CAS: 56-81-5, EINECS/ELINCS: 200-289-5
	Long-term exposure: 10 mg/m <sup>3</sup> , (mist)
1 - <20	Dibenzoyl peroxide
	CAS: 94-36-0, EINECS/ELINCS: 202-327-6, EU-INDEX: 617-008-00-0, ECB-Nr.: 01-2119511472-50-XXXX
	Long-term exposure: 5 mg/m <sup>3</sup>

#### DNEL

Range [%]	Substance
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0
	Industrial, dermal, Long-term - systemic effects: 6,6 mg/kg bw/d.
	Industrial, inhalative, Long-term - systemic effects: 11,75 mg/m <sup>3</sup> .
	general population, oral, Long-term - systemic effects: 1,65 mg/kg bw/d.
	general population, dermal, Long-term - systemic effects: 3,3 mg/kg bw/d.
	general population, inhalative, Long-term - systemic effects: 2,9 mg/m <sup>3</sup> .

#### PNEC

Range [%]	Substance
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0
	oral (food), 6,67 mg/kg dw.
	soil, 0,0758 mg/kg dw.
	sediment (freshwater), 0,338 mg/kg dw.
	sewage treatment plants (STP), 0,35 mg/l.
	freshwater, 0,000602 mg/l.
	seawater, 0,0000602 mg/l.

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## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Tightly fitting goggles.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In splash contact Nitrile rubber, >120 min (EN 374). In full contact: Butyl rubber, >480 min (EN 374).
<b>Skin protection</b>	Protective clothing.
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, combination filter A-P2.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	pasty
<b>Color</b>	black
<b>Odor</b>	characteristic
<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>	116
<b>Flammability (solid, gas) [°C]</b>	not determined
<b>Lower explosion limit</b>	not determined
<b>Upper explosion limit</b>	not determined
<b>Oxidizing properties</b>	not determined
<b>Vapour pressure/gas pressure [kPa]</b>	not determined
<b>Density [g/ml]</b>	not determined
<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>	not determined
<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 [°C]</b>	not determined

### 9.2 Other information

No information available.

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See SECTION 10.3.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

### 10.4 Conditions to avoid

Strong heating.  
See SECTION 7.2.

### 10.5 Incompatible materials

Strong oxidizing agent.

### 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 - <5	2-Ethylhexyl benzoate, CAS: 5444-75-7
	LD50, dermal, Rabbit: >5000 mg/kg bw.
	LD50, oral, Rat: >2000 mg/kg bw.
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0
	LD50, oral, Rat: >5000 mg/kg.

**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** There is no evidence of any mutagenic effects.

**Reproduction toxicity** There is no evidence of any reproductive toxicity effects.

**Carcinogenicity** There is no evidence of any carcinogenic effects.

#### General remarks

Toxicological data of complete product are not available.  
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Product
EC50, (72h), Pseudokirchneriella subcapitata: > 1 mg/l.
EC50, (48h), Daphnia magna: > 1 mg/l.

Range [%]	Substance
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0
	LC50, (96h), Oncorhynchus mykiss: 0,0602 mg/l (OECD 203).
	LC50, (96h), fish: 1,7-2,4 mg/l (OECD 203).
	EC50, (48h), Daphnia magna: 2,91 mg/l (OECD 202).
	EC50, (48h), Daphnia magna: 0,11 mg/l (OECD 202).
	EC50, (72h), Pseudokirchneriella subcapitata: 0,0711 mg/l (OECD 201).
	NOEC, (48h), Daphnia magna: 1,99 mg/l.

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	not determined
<b>Biological degradability</b>	not determined

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information 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

No classification due to toxicological investigations.  
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.  
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

Coordinate disposal with the disposal contractor/authorities if necessary.

#### Waste no. (recommended)

080409\*

#### Contaminated packaging

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

#### Waste no. (recommended)

150110\*  
150102



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#### SECTION 14: Transport information

##### 14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

##### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

##### 14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

##### 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 and the IBC Code

not applicable

#### SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people Observe employment restrictions for young people.

- VOC (1999/13/CE) 0 %

##### 15.2 Chemical safety assessment

not applicable

#### SECTION 16: Other information

##### 16.1 Hazard statements (SECTION 3)

H372 Causes damage to organs through prolonged or repeated exposure.  
H413 May cause long lasting harmful effects to aquatic life.  
H400 Very toxic to aquatic life.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H241 Heating may cause a fire or explosion.

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## 16.2 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

## 16.3 Other information

### Classification procedure

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)  
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)

### Modified position

SECTION 2 been added: R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
SECTION 2 been added: Dangerous for the environment  
SECTION 6 been added: In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.  
SECTION 11 been added: Toxicological data of complete product are not available.  
SECTION 11 deleted: Sensitizing.  
SECTION 11 deleted: Slight irritant effect - does not require labelling.  
SECTION 16 been added: Calculation method

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