

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 16-Apr-2018

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Version: 1.0

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FK-Chem

## FK-fix S, Komponente A

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

#### 1.1 Product identifier

Trade name/designation:

FK-fix S, Komponente A

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

Use of the substance/mixture:

2-Component adhesive.

Reserved for industrial and professional use.

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

Manufacturer/Supplier:

FK-Chem GmbH & Co. KG

Günther-Irmscher-Straße 5

73630 Remshalden

GERMANY

Telephone: +49 (0) 7151 209196-0

Telefax: +49 (0) 7151 209169-9

E-mail: kontakt@fk-chem.de

Website: <http://www.fk-chem.de>

E-mail (competent person): m.kirschbaum@fk-chem.de, Mr. Dr. Martin Kirschbaum

#### 1.4 Emergency phone number

+49 (0) 7151 209196-0 (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation ( <i>Skin Irrit. 2</i> )	H315: Causes skin irritation.	Calculation
Flammable liquids ( <i>Flam. Liq. 2</i> )	H225: Highly flammable liquid and vapour.	Assessment
Respiratory or skin sensitisation ( <i>Skin Sens. 1</i> )	H317: May cause an allergic skin reaction.	Calculation
STOT-single exposure ( <i>STOT SE 3</i> )	H335: May cause respiratory irritation.	Calculation
Hazardous to the aquatic environment ( <i>Aquatic Chronic 3</i> )	H412: Harmful to aquatic life with long lasting effects.	Calculation

#### 2.2 Label elements

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

Hazard pictograms:



GHS02  
Flame



GHS07  
Exclamation mark

Signal word: Warning

Hazard components for labelling:

methyl methacrylate; Tetramethylene dimethacrylate

Hazard statements for physical hazards

H225 Highly flammable liquid and vapour.

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### Hazard statements for health hazards

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

### Hazard statements for environmental hazards

H412	Harmful to aquatic life with long lasting effects.
------	--

### Precautionary statements - Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### Precautionary statements - Response

P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

## 2.3 Other hazards








### Adverse human health effects and symptoms:

May cause eye irritation.

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

#### Ingredients:

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Content
CAS No.: 80-62-6 EC No.: 201-297-1 REACH No.: 01-2119452498-28	<b>methyl methacrylate</b> STOT SE 3, Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1   <b>Danger</b> H225-H315-H317-H335	50 - 100 Wt %
CAS No.: 3290-92-4 EC No.: 221-950-4	<b>Propylidynetrimethyl trimethacrylate</b> Aqua. Chronic 2  H411	< 5 Wt %
CAS No.: 112945-52-5 REACH No.: 01-2119379499-16	<b>Silicium dioxide (nano)</b>	2 - 3 Wt %
CAS No.: 2082-81-7 EC No.: 218-218-1 REACH No.: 01-2119967415-30	<b>Tetramethylene dimethacrylate</b> Skin Sens. 1B  <b>Warning</b> H317	< 1 Wt %
CAS No.: 38668-48-3 EC No.: 254-075-1 REACH No.: 01-2119980937-17	<b>1,1'-(p-Tolylimino)dipropan-2-ol</b> Acute Tox. 2, Eye Irrit. 2, Aqua. Chronic 3  <b>Danger</b> H300-H319-H412	< 1 Wt %
CAS No.: 7575-23-7 EC No.: 231-472-8 REACH No.: 01-2119489443-30	<b>Pentaerythritol tetrakis(3-mercaptopropionate)</b> Acute Tox. 4, Skin Sens. 1, Aqua. Acute 1, Aqua. Chronic 1   <b>Warning</b> H302-H317-H410	0.5 - < 1 Wt %

Full text of H- and EUH-phrases: see section 16.

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**General information:**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Take off immediately all contaminated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

**Following inhalation:**

Provide fresh air. Call a doctor if you feel unwell.

**In case of skin contact:**

Wash immediately with: Water and soap. If skin irritation or rash occurs: Get medical advice/attention.

**After eye contact:**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**After ingestion:**

Rinse mouth immediately and drink plenty of water. Get medical advice/attention.

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

Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. May cause eye irritation.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:**

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>).

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

Highly flammable liquid and vapour. Vapours can form explosive mixtures with air. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

**Hazardous combustion products:**

In case of fire may be liberated: carbon oxides (CO<sub>x</sub>), gases/vapours, toxic

#### 5.3 Advice for firefighters

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

#### 5.4 Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

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

##### 6.1.1 For non-emergency personnel

**Personal precautions:**

Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with eyes and skin. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Remove persons to safety.

**Protective equipment:**

Wear protective gloves/protective clothing/eye protection/face protection. See section 8.

##### 6.1.2 For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8.

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### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

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

#### For containment:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up:

Solvent / Water with tenside additive

### 6.4 Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

### 6.5 Additional information

Use appropriate container to avoid environmental contamination.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

##### Advices on safe handling:

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8).

##### Fire prevent measures:

Highly flammable: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking. Ground/bond container and receiving equipment. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Take precautionary measures against static discharges.

##### Environmental precautions:

Discharge into the environment must be avoided.

##### Advices on general occupational hygiene

Wash hands before breaks and after work. When using do not eat, drink or smoke. Take off contaminated clothing and wash it before reuse.

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

#### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

#### Requirements for storage rooms and vessels:

Material, solvent-resistant. Keep/Store only in original container.

#### Hints on storage assembly:

Keep away from combustible material. Do not store together with: Substances, Storage class 6.1.

Keep away from food, drink and animal feedingstuffs.

#### Further information on storage conditions:

Protect from sunlight. Store in a well-ventilated place.

### 7.3 Specific end use(s)

#### Recommendation:

2-Component adhesive.

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### SECTION 8: Exposure controls / Personal protection

#### 8.1 Control parameters

##### 8.1.1 Occupational exposure limit values

Limit value type (country)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	methyl methacrylate CAS No.: 80-62-6	① 50 ppm (208 mg/m <sup>3</sup> ) ② 100 ppm (416 mg/m <sup>3</sup> )
IOELV (EU)	methyl methacrylate CAS No.: 80-62-6	① 50 ppm ② 100 ppm
WEL (GB)	Silicium dioxide (nano) CAS No.: 112945-52-5	① 6 mg/m <sup>3</sup> ⑤ (Silica, amorphous; inhalable fraction)
WEL (GB)	Silicium dioxide (nano) CAS No.: 112945-52-5	① 2.4 mg/m <sup>3</sup> ⑤ (Silica, amorphous; respirable fraction)

##### 8.1.2 Biological limit values

No data available.

##### 8.1.3 DNEL-/PNEC-values

No data available.

#### 8.2 Exposure controls

##### 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Generation/formation of aerosols: Devices with local exhaust / Technical ventilation of workplace

##### 8.2.2 Personal protection equipment



###### Eye/face protection:

Eye glasses with side protection (EN 166).

###### Skin protection:

Tested protective gloves must be worn (EN 374).

Suitable material: IIR (Butyl rubber)

Thickness of the glove material:  $\geq 0,5$  mm

Breakthrough time (maximum wearing time):  $\geq 60$  min

The statement is derived from the properties of the main components. The suitability of the glove material for the handling of the product has not been verified. 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. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. Recommendation: Draw up and observe skin protection programme.

###### Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Combination filtering device (EN 14387), Filter type A-P2.

###### Other protection measures:

Wear anti-static footwear and clothing

##### 8.2.3 Environmental exposure controls

No data available.

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### 8.3 Additional information

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Physical state:** liquid

**Colour:** different, depending on coloration

**Odour:** like Methyl methacrylate

#### Safety relevant basic data

Parameter		at	Method	Remark
pH	<i>not applicable</i>			
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	100 °C			Methyl methacrylate
Decomposition temperature	<i>not determined</i>			
Flash point	9 °C		c.c.	
Evaporation rate	<i>not determined</i>			
Ignition temperature	≥ 430 °C			Methyl methacrylate
Upper/lower flammability or explosive limits	2.1 - 12.5 Vol-%			Methyl methacrylate
Vapour pressure	38.7 hPa	20 °C		Methyl methacrylate
Vapour density	<i>not determined</i>			
Relative density	≈ 1 g/ml	20 °C		
Bulk density	<i>not applicable</i>			
Water solubility	slightly soluble	20 °C		
Partition coefficient: n-octanol/ water	1.38			Methyl methacrylate
Dynamic viscosity	10,000 - 15,000 mPa*s	20 °C		thixotropic
Kinematic viscosity	<i>not determined</i>			

### 9.2 Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Highly flammable liquid and vapour.

### 10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. Vapours can form explosive mixtures with air. Can polymerise exothermically if heated, exposed to air, sunlight or by addition of free radical initiators.

### 10.4 Conditions to avoid

Protect from sunlight. Store in a well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 10.5 Incompatible materials

Oxidising agent

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

In case of fire may be liberated: carbon oxides (CO<sub>x</sub>), gases/vapours, toxic

### Further information

No data available.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

CAS No.	Substance name	Toxicological information
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	LD <sub>50</sub> oral: 25 - 200 mg/kg (Rat) OECD 401

**Acute oral toxicity:**

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

**Acute dermal toxicity:**

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

**Acute inhalation toxicity:**

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

**Skin corrosion/irritation:**

Causes skin irritation.

**Serious eye damage/irritation:**

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

May cause eye irritation.

**Respiratory or skin sensitisation:**

May cause an allergic skin reaction.

**Germ cell mutagenicity:**

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

**Carcinogenicity:**

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

**Reproductive toxicity:**

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

**STOT-single exposure:**

May cause respiratory irritation.

**STOT-repeated exposure:**

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

**Aspiration hazard:**

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

**Additional information:**

No data available.

### SECTION 12: Ecological information

#### 12.1 Toxicity

CAS No.	Substance name	Toxicological information
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	LC <sub>50</sub> : 17 mg/L 4 d (Brachydanio rerio) EC <sub>50</sub> : 28.8 mg/L 2 d

**Aquatic toxicity:**

Harmful to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

**Biodegradation:**

Not readily biodegradable (according to OECD criteria)

#### 12.3 Bioaccumulative potential

**Bioconcentration factor (BCF):**

There are no data available on the preparation/mixture itself.

**Partition coefficient: n-octanol/water:**

1.38; Remark: Methyl methacrylate

**Accumulation / Evaluation:**

No indication of bioaccumulation potential.

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### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
3290-92-4	Propylidynetrimethyl trimethacrylate	—
2082-81-7	Tetramethylene dimethacrylate	—
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	—
112945-52-5	Silicium dioxide (nano)	—
7575-23-7	Pentaerythritol tetrakis(3-mercaptopropionate)	—

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6 Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Waste treatment options

##### Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

##### Appropriate disposal / Package:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.





##### Other disposal recommendations:

The allocation of waste code numbers / waste names must be carried out in accordance with the European Waste Catalogue (EWC). Collect in closed and suitable containers for disposal. Do not allow to enter into surface water or drains.

### 13.2 Additional information

Waste for disposal is to be classified and labelled.

## SECTION 14: Transport information

Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1 UN-No.</b>			
1133	1133	1133	1133
<b>14.2 UN proper shipping name</b>			
Adhesives	Adhesives	Adhesives	Adhesives
<b>14.3 Transport hazard class(es)</b>			
 3	 3	 3	 3
<b>14.4 Packing group</b>			
II	II	II	II
<b>14.5 Environmental hazards</b>			
No	No	No	No



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Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO- TI / IATA-DGR)
<b>14.6 Special precautions for user</b>			
<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> 5 L <b>Hazard identification number (KemlerNo.):</b> 33 <b>Classification code:</b> F1 <b>Tunnel restriction code:</b> (D/E) <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>Classification code:</b> F1 <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>EmS-No.:</b> F-E, S-D <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>Remark:</b> -

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

not determined

#### Additional information:

Transport as "Excepted Quantity" according to chapter 3.5 ADR/RID

Transport as "limited quantity" according to chapter 3.4 ADR/RID

## SECTION 15: Regulatory information

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

#### 15.1.1 EU legislation

##### Other EU regulations:

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

#### 15.1.2 National regulations

No data available.

### 15.2 Chemical Safety Assessment

No data available.

### 15.3 Additional information

No data available.

## SECTION 16: Other information

### 16.1 Indication of changes

No data available.

### 16.2 Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

### 16.3 Key literature references and sources for data

European Chemicals Agency (ECHA): <http://www.echa.europa.eu>

ECHA, C&L Inventory: <http://echa.europa.eu/information-on-chemicals/cl-inventory-database>

ECHA, Registered substances: <http://echa.europa.eu/information-on-chemicals/registered-substances>

GESTIS (Gefahrstoffinformationssystem der DGUV): <http://www.dguv.de/ifa/GESTIS/index.jsp>

Hörath Gefährliche Stoffe und Gemische, 8. Auflage, Dr. Angela Schulz

Safety data sheets of the manufacturers

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

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation ( <i>Skin Irrit. 2</i> )	H315: Causes skin irritation.	Calculation
Flammable liquids ( <i>Flam. Liq. 2</i> )	H225: Highly flammable liquid and vapour.	Assessment
Respiratory or skin sensitisation ( <i>Skin Sens. 1</i> )	H317: May cause an allergic skin reaction.	Calculation
STOT-single exposure ( <i>STOT SE 3</i> )	H335: May cause respiratory irritation.	Calculation
Hazardous to the aquatic environment ( <i>Aquatic Chronic 3</i> )	H412: Harmful to aquatic life with long lasting effects.	Calculation

### 16.5 Relevant H- and EUH-phrases

Hazard statements	
H225	Highly flammable liquid and vapour.
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### 16.6 Training advice

No data available.

### 16.7 Additional information

The information in this safety data sheet has been established to our best knowledge and was up-to-date at time of revision. The information is intended to give you advice about the safe handling of the product for storage, processing, transport and disposal. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

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## FK-fix S, Komponente B

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

#### 1.1 Product identifier

Trade name/designation:

FK-fix S, Komponente B

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

Use of the substance/mixture:

2-Component adhesive.

Reserved for industrial and professional use.

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

Manufacturer/Supplier:

FK-Chem GmbH & Co. KG

Günther-Irmscher-Straße 5

73630 Remshalden

GERMANY

Telephone: +49 (0) 7151 209196-0

Telefax: +49 (0) 7151 209169-9

E-mail: kontakt@fk-chem.de

Website: <http://www.fk-chem.de>

E-mail (competent person): m.kirschbaum@fk-chem.de, Mr. Dr. Martin Kirschbaum

#### 1.4 Emergency phone number

+49 (0) 7151 209196-0 (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Respiratory or skin sensitisation ( <i>Skin Sens. 1B</i> )	H317: May cause an allergic skin reaction.	Calculation
Hazardous to the aquatic environment ( <i>Aquatic Acute 1</i> )	H400: Very toxic to aquatic life.	Calculation
Hazardous to the aquatic environment ( <i>Aquatic Chronic 1</i> )	H410: Very toxic to aquatic life with long lasting effects.	Calculation

#### 2.2 Label elements

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

Hazard pictograms:



GHS07

Exclamation mark



GHS09

Environment

Signal word: Warning

Hazard components for labelling:

dibenzoyl peroxide

#### Hazard statements for health hazards

H317 May cause an allergic skin reaction.

#### Hazard statements for environmental hazards

H410 Very toxic to aquatic life with long lasting effects.

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### Supplemental hazard information (EU): -

#### Precautionary statements - Prevention

P235+P410	Keep cool. Protect from sunlight.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

#### Precautionary statements - Response

P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.

### 2.3 Other hazards



#### Adverse human health effects and symptoms:

May cause eye irritation.

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

#### Ingredients:

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Content
CAS No.: 670241-72-2 EC No.: 447-010-5	<b>Nonylbenzoate, branched and linear</b> Aqua. Chronic 2  H411	10 - 20 Wt %
CAS No.: 94-36-0 EC No.: 202-327-6	<b>dibenzoyl peroxide</b> Org. Perox. B, Eye Irrit. 2, Skin Sens. 1, Aqua. Acute 1, Aqua. Chronic 1  <b>Danger</b> H241-H317-H319-H410 M-factor: 10	5 - 10 Wt %

Full text of H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Take off immediately all contaminated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact:

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

#### After eye contact:

Do not subject to friction. In case of contact with eyes, rinse thoroughly with water. In case of eye irritation consult an ophthalmologist.

#### After ingestion:

Rinse mouth immediately and drink plenty of water. Get medical advice/attention.

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

May cause an allergic skin reaction. May cause eye irritation.

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

Treat symptomatically.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:**

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>).

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

Oxidizing! May intensify fire; oxidiser. Decomposition takes place from temperatures above: +50 °C. Formation of: Oxygen (O<sub>2</sub>); carbon oxides (CO<sub>x</sub>); gases/vapours, toxic. Due to gaseous decomposition products, overpressure can occur in tightly sealed containers. When heated above decomposition temperature, harmful fumes can be generated.

#### 5.3 Advice for firefighters

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

#### 5.4 Additional information

Move undamaged containers from immediate hazard area if it can be done safely. Use water spray to keep fire-exposed containers cool. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

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

##### 6.1.1 For non-emergency personnel

**Personal precautions:**

Avoid contact with skin, eyes and clothes. Keep cool. Protect from sunlight. Remove persons to safety.

**Protective equipment:**

Wear protective gloves/protective clothing/eye protection/face protection. See section 8.

##### 6.1.2 For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8.

#### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

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

**For containment:**

Take up mechanically. Alternative: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up:**

Water (with cleaning agent)

#### 6.4 Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

#### 6.5 Additional information

Use appropriate container to avoid environmental contamination.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Impurities may cause catalytic decomposition. Always close containers tightly after the removal of product. Handle with care - avoid bumps, friction and impact. Do not expose to temperatures exceeding 45 °C. Wear personal protection equipment (refer to section 8).

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### Fire prevent measures:

Avoid: impurities. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Protect from sunlight.

### Measures to prevent aerosol and dust generation:

Dust should be exhausted directly at the point of origin.

### Environmental precautions:

Discharge into the environment must be avoided.

### Advices on general occupational hygiene

When using do not eat, drink or smoke. Wash hands before breaks and after work. Apply skin care products after work.

## 7.2 Conditions for safe storage, including any incompatibilities

### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Peroxides: Observe in addition any national regulations. storage temperature: 5 - 30 °C

### Requirements for storage rooms and vessels:

Keep/Store only in original container.

### Hints on storage assembly:

Keep away from food, drink and animal feedingstuffs.

## 7.3 Specific end use(s)

### Recommendation:

2-Component adhesive.

## SECTION 8: Exposure controls / Personal protection

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limit values

Limit value type (country)	Substance name	① Long-term occupational exposure limit value
		② Short-term occupational exposure limit value
		③ Instantaneous value
		④ Monitoring and observation processes
		⑤ Remark
WEL (GB)	dibenzoyl peroxide CAS No.: 94-36-0	① 5 mg/m <sup>3</sup>

#### 8.1.2 Biological limit values

No data available.

#### 8.1.3 DNEL-/PNEC-values

No data available.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Provide adequate ventilation as well as local exhaust at critical locations.

#### 8.2.2 Personal protection equipment



### Eye/face protection:

Recommendation: Eye glasses with side protection (EN 166)

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### Skin protection:

Tested protective gloves must be worn (EN 374).

Suitable material: IIR (Butyl rubber)

Thickness of the glove material:  $\geq 0,5$  mm

Breakthrough time (maximum wearing time):  $\geq 480$  min

The statement is derived from the properties of the main components. The suitability of the glove material for the handling of the product has not been verified. 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. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. Recommendation: Draw up and observe skin protection programme.

### Respiratory protection:

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn.

Suitable respiratory protection apparatus: Combination filtering device (EN 14387), Filter type A-P2.

### Other protection measures:

Wear suitable protective clothing (EN 340).

### 8.2.3 Environmental exposure controls

No data available.

### 8.3 Additional information

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Physical state:** solid, pasty

**Colour:** white

**Odour:** not determined

#### Safety relevant basic data

Parameter		at	Method	Remark
pH	<i>not applicable</i>			
Melting point	<i>not applicable</i>			
Freezing point	<i>not applicable</i>			
Initial boiling point and boiling range	<i>not applicable</i>			(Decomposition)
Decomposition temperature	50 °C			SADT
Flash point	<i>not determined</i>			
Evaporation rate	<i>not determined</i>			
Ignition temperature	<i>not applicable</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Relative density	1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not applicable</i>			
Water solubility	<i>not determined</i>	20 °C		
Partition coefficient: n-octanol/ water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>			

### 9.2 Other information

No data available.

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

#### 10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

#### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Warning! Autocatalytic decomposition reaction: See section 10.6

#### 10.4 Conditions to avoid

Avoid: impurities, UV-radiation/sunlight, Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

#### 10.5 Incompatible materials

impurities. Impurities may cause catalytic decomposition. Spontaneous decomposition!

#### 10.6 Hazardous decomposition products

Decomposition takes place from temperatures above: +50 °C (Self-accelerating decomposition temperature (SADT)). Formation of: Oxygen (O<sub>2</sub>); carbon oxides (CO<sub>x</sub>); gases/vapours, toxic.

#### Further information

No data available.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute oral toxicity:

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

##### Acute dermal toxicity:

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

##### Acute inhalation toxicity:

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

##### Skin corrosion/irritation:

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

##### Serious eye damage/irritation:

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

##### Respiratory or skin sensitisation:

May cause an allergic skin reaction.

##### Germ cell mutagenicity:

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

##### Carcinogenicity:

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

##### Reproductive toxicity:

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

##### STOT-single exposure:

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

May cause eye irritation.

##### STOT-repeated exposure:

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

##### Aspiration hazard:

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

##### Additional information:

No data available.



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### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

##### Biodegradation:

Not readily biodegradable (according to OECD criteria)

#### 12.3 Bioaccumulative potential

##### Bioconcentration factor (BCF):

There are no data available on the preparation/mixture itself.

#### 12.4 Mobility in soil

No data available.

#### 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6 Other adverse effects

No data available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Waste treatment options

##### Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

##### Appropriate disposal / Package:

Completely emptied packages can be recycled.





##### Other disposal recommendations:

The allocation of waste code numbers / waste names must be carried out in accordance with the European Waste Catalogue (EWC). Collect in closed and suitable containers for disposal. Do not allow to enter into surface water or drains.

#### 13.2 Additional information

Waste for disposal is to be classified and labelled.

### SECTION 14: Transport information

Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1 UN-No.</b>			
3077	3077	3077	3077
<b>14.2 UN proper shipping name</b>			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide)
<b>14.3 Transport hazard class(es)</b>			
 9	 9	 9	 9
<b>14.4 Packing group</b>			
III	III	III	III

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Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO- TI / IATA-DGR)
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### 14.5 Environmental hazards

		 MARINE POLLUTANT	
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### 14.6 Special precautions for user

<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> 5 kg <b>Hazard identification number (KemlerNo.):</b> 90 <b>Classification code:</b> M7 <b>Tunnel restriction code:</b> (E) <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>Classification code:</b> M7 <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>EmS-No.:</b> F-A, S-F <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>Remark:</b> -
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### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not relevant

#### Additional information:

Transport as "Limited Quantity" according to chapter 3.4 ADR/RID.

Transport as "Excepted Quantity" according to chapter 3.5 ADR/RID.

## SECTION 15: Regulatory information

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

#### 15.1.1 EU legislation

##### Other EU regulations:

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

#### 15.1.2 National regulations

No data available.

### 15.2 Chemical Safety Assessment

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

### 15.3 Additional information

No data available.

## SECTION 16: Other information

### 16.1 Indication of changes

No data available.

### 16.2 Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

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### 16.3 Key literature references and sources for data

European Chemicals Agency (ECHA): <http://www.echa.europa.eu>

ECHA, C&L Inventory: <http://echa.europa.eu/information-on-chemicals/cl-inventory-database>

ECHA, Registered substances: <http://echa.europa.eu/information-on-chemicals/registered-substances>

GESTIS (Gefahrstoffinformationssystem der DGUV): <http://www.dguv.de/ifa/GESTIS/index.jsp>

Hörath Gefährliche Stoffe und Gemische, 8. Auflage, Dr. Angela Schulz

Safety data sheets of the manufacturers

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

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Respiratory or skin sensitisation ( <i>Skin Sens. 1B</i> )	H317: May cause an allergic skin reaction.	Calculation
Hazardous to the aquatic environment ( <i>Aquatic Acute 1</i> )	H400: Very toxic to aquatic life.	Calculation
Hazardous to the aquatic environment ( <i>Aquatic Chronic 1</i> )	H410: Very toxic to aquatic life with long lasting effects.	Calculation

### 16.5 Relevant H- and EUH-phrases

Hazard statements	
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.
H411	Toxic to aquatic life with long lasting effects.

### 16.6 Training advice

No data available.

### 16.7 Additional information

The information in this safety data sheet has been established to our best knowledge and was up-to-date at time of revision. The information is intended to give you advice about the safe handling of the product for storage, processing, transport and disposal. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.