

**Safety Data Sheet**

according to UK REACH Regulation

**VK - Vinylester, Comp. A**

Revision date: 14.10.2022

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

VK - Vinylester, Comp. A

UFI: VSS1-F7MH-U00V-DGG2

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

Adhesive mortar for fastening elements A-component (resin)

**Uses advised against**

no restriction

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

Company name:	Chemofast Anchoring GmbH	
Street:	Hanns-Martin-Schleyer-Str. 23	
Place:	D-47877 Willich	
Telephone:	+49 2154 8123 0	Telefax: +49 2154 8123 333
Internet:	www.chemofast.de	
Responsible Department:	sdb@chemofast.de	

**1.4. Emergency telephone number:** +49 (0)551-19240 (GIZ-Nord, German und English 24/7)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**Tetramethylene dimethacrylate;  
Methacrylic acid, monoester with propane-1,2-diol**Signal word:** Warning**Pictograms:****Hazard statements**

H317 May cause an allergic skin reaction.

**Precautionary statements**

P261	Avoid breathing vapours.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an approved waste disposal plant in accordance with local/national regulation.

**2.3. Other hazards**

No information available.

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**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
2082-81-7	Tetramethylene dimethacrylate			5 - < 20 %
	218-218-1		01-2119967415-30	
	Skin Sens. 1B; H317			
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol			1 - < 8,5 %
	248-666-3		01-2119490226-37	
	Eye Irrit. 2, Skin Sens. 1; H319 H317			
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol			< 1,25 %
	254-075-1		01-2119980937-17	
	Acute Tox. 2, Eye Irrit. 2, Aquatic Chronic 3; H300 H319 H412			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
2082-81-7	218-218-1	Tetramethylene dimethacrylate	5 - < 20 %
	dermal: LD50 = > 3000 mg/kg; oral: LD50 = 10066 mg/kg		
27813-02-1	248-666-3	Methacrylic acid, monoester with propane-1,2-diol	1 - < 8,5 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 2000 mg/kg		
38668-48-3	254-075-1	1,1'-(p-Tolylimino)dipropan-2-ol	< 1,25 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 25 - < 200 mg/kg		

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove affected person from the danger area and lay down. Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

**After inhalation**

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

**After contact with skin**

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

**After contact with eyes**

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

**After ingestion**

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

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

May cause an allergic skin reaction.

May cause respiratory irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

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Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Foam  
Extinguishing powder  
Water spray jet  
Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

Full water jet

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

Pyrolysis products, toxic  
Carbon monoxide

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. In case of fire and/or explosion do not breathe fumes.

**Additional information**

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

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Use personal protective equipment as required. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

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

**6.4. Reference to other sections**

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

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

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

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**Advice on general occupational hygiene**

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

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

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

**Hints on joint storage**

Do not use for products which come into contact with the food stuffs.

**Further information on storage conditions**

storage temperature: 5 - 25°C

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

Adhesive mortar for fastening elements A-component (resin)

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
2082-81-7	Tetramethylene dimethacrylate			
	Worker DNEL, long-term	inhalation	systemic	14,5 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	4,2 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	4,3 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	2,5 mg/kg bw/day
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol			
	Worker DNEL, long-term	inhalation	systemic	14,7 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	4,2 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	8,8 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	2,5 mg/kg bw/day
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol			
	Worker DNEL, long-term	inhalation	systemic	2 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	0,6 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0,3 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	0,3 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	0,4 mg/m <sup>3</sup>

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**PNEC values**

CAS No	Substance	Value
Environmental compartment		
2082-81-7	Tetramethylene dimethacrylate	
Freshwater		0,043 mg/l
Marine water		0,004 mg/l
Freshwater sediment		3,12 mg/kg
Marine sediment		0,312 mg/kg
Micro-organisms in sewage treatment plants (STP)		2 mg/l
Soil		0,573 mg/kg
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol	
Freshwater		0,904 mg/l
Marine water		0,904 mg/l
Freshwater sediment		6,28 mg/kg
Marine sediment		6,28 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,727 mg/kg
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	
Freshwater		0,017 mg/l
Marine water		0,0017 mg/l
Freshwater sediment		0,0783 mg/kg
Marine sediment		0,0072 mg/kg
Soil		0,005 mg/kg

**Additional advice on limit values**

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

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

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

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear eye/face protection. Wear safety glasses.

**Hand protection**

Disposable gloves  
 Recommended material: NBR (Nitrile rubber)  
 Breakthrough time: > 480 min  
 Thickness of the glove material: > 0,2 mm  
 DIN-/EN-Norms EN 374

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

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control digits. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

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

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid (pasty)
Colour:	light beige
Odour:	characteristic
Odour threshold:	No data available

**Changes in the physical state**

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flash point:	not applicable

**Flammability**

Solid/liquid:	not determined
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined

**Self-ignition temperature**

Solid:	not determined
Gas:	not applicable
Decomposition temperature:	not determined
pH-Value:	not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

**Solubility in other solvents**

not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	1,71 g/cm <sup>3</sup>
Relative vapour density:	not determined

**9.2. Other information****Information with regard to physical hazard classes**

Oxidizing properties  
Not oxidising.

**Other safety characteristics**

Solid content:	not determined
Evaporation rate:	not determined

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**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Response: Oxidising agent, strong

**10.4. Conditions to avoid**

Heat. Keep cool. Protect from sunlight.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

**ATEmix calculated**

ATE (oral) 2499,1 mg/kg; ATE (inhalation vapour) 4900,00 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
2082-81-7	Tetramethylene dimethacrylate				
	oral	LD50 mg/kg	10066	Rat	
	dermal	LD50 mg/kg	> 3000	Rabbit	
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol				
	oral	LD50 mg/kg	> 2000	Rat	
	dermal	LD50 mg/kg	> 5000	Rabbit	
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol				
	oral	LD50 mg/kg	> 25 - < 200	Rat	
	dermal	LD50 mg/kg	> 2000	Rat	

**Irritation and corrosivity**

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

**Sensitising effects**

May cause an allergic skin reaction. (Tetramethylene dimethacrylate; Methacrylic acid, monoester with propane-1,2-diol)

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

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

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**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Further information**

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

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name	Dose		[h]   [d]	Species	Source	Method
2082-81-7	Tetramethylene dimethacrylate						
	Acute algae toxicity	ErC50 mg/l	9,79	72 h			
	Crustacea toxicity	NOEC mg/l	5,09	21 d			
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol						
	Acute algae toxicity	ErC50 mg/l	> 97,2	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 mg/l	> 143	48 h	Daphnia magna (Big water flea)		
	Algae toxicity	NOEC mg/l					
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol						
	Acute fish toxicity	LC50	17 mg/l	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50	245 mg/l	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	28,8	48 h	Daphnia magna (Big water flea)		
	Algae toxicity	NOEC mg/l	57,8	72 d	Desmodesmus subspicatus		OECD 201

**12.2. Persistence and degradability**

The product has not been tested.

CAS No	Chemical name	Value		d	Source
	Method				
	Evaluation				
2082-81-7	Tetramethylene dimethacrylate				
	OECD 310	84 %		28	
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol				
	OECD 301C	81%		28	

**12.3. Bioaccumulative potential**

The product has not been tested.



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**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
2082-81-7	Tetramethylene dimethacrylate	3,1
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol	0,97
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	2,1

**12.4. Mobility in soil**

The product has not been tested.

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

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

The product has not been tested.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

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

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Subsequent waste code numbers of the European Waste Catalogue are considered as recommendations.

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

**List of Wastes Code - residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - used product**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

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<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No information available.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

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

**Additional information**

VOC content: 6,9 % (DIN EN ISO 11890-2)

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

**National regulatory information**

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Abbreviations and acronyms**

ADN: Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation  
(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)  
ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
CAS: Chemical Abstracts Service  
CLP: Classification, Labeling and Packaging

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DMEL: Derived Minimal Effect level  
 DNEL: Derived No Effect Level  
 EC50: Effective concentration, 50%  
 ErC50: EC50 in terms of reduction of growth rate  
 IATA: International Air Transport Association  
 IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)  
 IMDG: International Maritime Code for Dangerous Goods  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 NOEC: No Observed Effect Concentration  
 OECD: Organisation for Economic Co-operation and Development  
 PBT: persistent, bioaccumulative and toxic  
 vPvB: very persistent and very bioaccumulative  
 PNEC: Predicted No Effect Concentration  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
 RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)  
 VOC: Volatile organic compound  
 Acute Tox. 2: Acute toxicity, Category 2  
 Aquatic Chronic 3: Long-term aquatic hazard, Category 3  
 Eye Irrit. 2: Serious eye damage/eye irritation, Category 2  
 Skin Sens. 1: Skin sensitization, Category 1  
 STOT SE 3: Specific target organ toxicity (single exposure), Category 3

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Skin Sens. 1; H317	Calculation method

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

H300 Fatal if swallowed.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H412 Harmful to aquatic life with long lasting effects.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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

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

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UFI: FCR1-J0PF-500V-JP6X

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

compound mortar B-component (hardener)

**Uses advised against**

no restriction

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

Company name:	Chemofast Anchoring GmbH	
Street:	Hanns-Martin-Schleyer-Str. 23	
Place:	D-47877 Willich	
Telephone:	+49 2154 8123 0	Telefax: +49 2154 8123 333
Internet:	www.chemofast.de	
Responsible Department:	sdb@chemofast.de	

**1.4. Emergency telephone number:** +49 (0)551-19240 (GIZ-Nord, German und English 24/7)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**Eye Irrit. 2; H319  
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

Dibenzoyl peroxide

**Signal word:** Warning**Pictograms:****Hazard statements**H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.**Precautionary statements**P261 Avoid breathing vapours.  
P280 Wear protective gloves and eye/face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to an approved waste disposal plant in accordance with local/national regulation.

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**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

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

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
94-36-0	202-327-6	Dibenzoyl peroxide	5 - < 15 %
	oral: LD50 = > 5000 mg/kg M acute; H400: M=10 M chron.; H410: M=10		

**Further Information**

The product has been tested for aquatic toxicity. The tests show no need for classification of the product as toxic and harmful to aquatic life. Test reports are available.

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

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

**After inhalation**

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

**After contact with skin**

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

**After contact with eyes**

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

**After ingestion**

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

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

May cause an allergic skin reaction.

Causes serious eye irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

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**5.1. Extinguishing media****Suitable extinguishing media**

Foam  
Extinguishing powder  
Water spray jet  
Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

Full water jet

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

Pyrolysis products, toxic  
Carbon monoxide

**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.  
Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit

**Additional information**

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

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

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

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

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

**6.4. Reference to other sections**

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

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

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

**Advice on general occupational hygiene**

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

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

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**Requirements for storage rooms and vessels**

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

**Hints on joint storage**

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

**Further information on storage conditions**

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

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

see section 1.2

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
94-36-0	Dibenzoyl peroxide	-	5		TWA (8 h)	WEL
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL

**DNEL/DMEL values**

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

**PNEC values**

CAS No	Substance	Environmental compartment	Value
94-36-0	Dibenzoyl peroxide		
Freshwater			0,00002 mg/l
Marine water			0,000002 mg/l
Freshwater sediment			0,013 mg/kg
Marine sediment			0,001 mg/kg

**Additional advice on limit values**

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

**8.2. Exposure controls**

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**Appropriate engineering controls**

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

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear eye/face protection. Wear safety glasses.

**Hand protection**

Disposable gloves  
Recommended material: NBR (Nitrile rubber)  
Breakthrough time: > 480 min  
Thickness of the glove material: > 0,2 mm  
DIN-/EN-Norms EN 374

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

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

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid (pasty)
Colour:	black
Odour:	characteristic
Odour threshold:	No data available

**Changes in the physical state**

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flash point:	not applicable

**Flammability**

Solid/liquid:	not determined
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined

**Self-ignition temperature**

Solid:	not determined
Gas:	not applicable
Decomposition temperature:	not determined
pH-Value:	not determined

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

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

not determined

Density (at 20 °C):

1,59 g/cm<sup>3</sup>

Relative vapour density:

not determined

**9.2. Other information****Information with regard to physical hazard classes**

Oxidizing properties

Not oxidising.

Available oxygen content &lt; 1%

no classification

**Other safety characteristics**

Solid content:

not determined

Evaporation rate:

not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

see section 10.3

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Violent reaction with: Oxidising agent

**10.4. Conditions to avoid**

see section 7.2

**10.5. Incompatible materials**

Oxidising agent, strong

**10.6. Hazardous decomposition products**

Benzoic acid

Benzene

Biphenyl

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
94-36-0	Dibenzoyl peroxide				
	oral	LD50 > 5000 mg/kg	Rat		

**Irritation and corrosivity**

Causes serious eye irritation.

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

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**Sensitising effects**

May cause an allergic skin reaction. (Dibenzoyl peroxide)

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

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Further information**

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

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

OECD 201 (Desmodesmus subspicatus )

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

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

OECD 202 (Daphnia magna)

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

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

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

OECD 203 (Danio rerio)

LC0/NOEC (96 h) : 250 mg/l

LC50 (96 h) : &gt; 500 mg/l

LC100 (96 h) : &gt;&gt; 500 mg/l

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
94-36-0	Dibenzoyl peroxide					
	Acute fish toxicity	LC50 mg/l	0,0602	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203
	Acute algae toxicity	ErC50 mg/l	0,0711	72 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50 mg/l	0,11	48 h	Daphnia magna (Big water flea)	OECD 202
	Algae toxicity	NOEC mg/l	0,02	3 d	Pseudokirchneriella subcapitata	OECD 201
	Crustacea toxicity	NOEC mg/l	0,001	21 d	Daphnia magna (Big water flea)	OECD 211
	Acute bacteria toxicity	(EC50	35 mg/l)	0,5 h		OECD 209

**12.2. Persistence and degradability**

The product has not been tested.

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

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

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

**12.4. Mobility in soil**

The product has not been tested.

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

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

The product has not been tested.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

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

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Subsequent waste code numbers of the European Waste Catalogue are considered as recommendations.

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

**List of Wastes Code - residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - used product**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

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## SECTION 14: Transport information

## Land transport (ADR/RID)

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

## Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

## Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

## Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No information available.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

## SECTION 15: Regulatory information

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

Restrictions on use (REACH, annex XVII):

Entry 75

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

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

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

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

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

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

**15.2. Chemical safety assessment**

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

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## SECTION 16: Other information

## Abbreviations and acronyms

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

## Classification for mixtures and used evaluation method according to GB CLP Regulation

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

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

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

## Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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