

Safety Data Sheet

according to UK REACH Regulation

VMU plus Polar, Comp. A

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

1.1. Product identifier

VMU plus Polar, Comp. A

UFI: 8GR7-V031-900X-NNAH

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: MKT Metall-Kunststoff-Technik GmbH & Co. KG

Street: Auf dem Immel 2 Place: D-67685 Weilerbach

Telephone: +49(0)6374-91 16-0 Telefax: +49(0)6374-91 16-60

e-mail: info@mkt.de Internet: www.mkt.de

1.4. Emergency telephone +49 (0) 89-19240 (Giftnotruf München, German and English 24/7)

number:

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

Methacrylic acid, monoester with propane-1,2-diol;

Tetramethylene dimethacrylate;

Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl]

(4-methylphenyl)amino]

Signal word: Warning

Pictograms:



Hazard statements

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

Precautionary statements

P261 Avoid breathing vapours.

P280 Wear protective gloves 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.



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P501

Dispose of contents/container to an approved waste disposal plant in accordance with local/national regulation.

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)				
27813-02-1	Methacrylic acid, monoester wit	h propane-1,2-diol		1 - < 20 %	
	248-666-3		01-2119490226-37		
	Eye Irrit. 2, Skin Sens. 1; H319	H317			
2082-81-7	Tetramethylene dimethacrylate			5 - < 20 %	
	218-218-1		01-2119967415-30		
	Skin Sens. 1B; 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				
-	Reaction mass of 2,2'-[(4-methy (2-hydroxyethoxy)ethyl](4-methy		hanol 2-[[2-	< 0,5 %	
	911-490-9		01-2119979579-10		
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H315 H318 H317 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	
27813-02-1	248-666-3	Methacrylic acid, monoester with propane-1,2-diol	1 - < 20 %
	dermal: LD50	= > 5000 mg/kg; oral: LD50 = > 2000 mg/kg	
2082-81-7	218-218-1	Tetramethylene dimethacrylate	5 - < 20 %
	dermal: LD50	= > 3000 mg/kg; oral: LD50 = 10066 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	
-		Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]	< 0,5 %
	dermal: LD50	= > 2000 mg/kg; oral: LD50 = 619 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! 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.



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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

5.1. Extinguishing media

Suitable extinguishing media

Foam

Extinguishing powder

Water spray jet

Carbon dioxide (CO2)

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



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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, 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: -20 - +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



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DNEL/DMEL values

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol				
Worker DNEL	., long-term	inhalation	systemic	14,7 mg/m³	
Worker DNEL	., long-term	dermal	systemic	4,2 mg/kg bw/day	
Consumer DN	IEL, long-term	inhalation	systemic	8,8 mg/m³	
Consumer DN	IEL, long-term	dermal	systemic	2,5 mg/kg bw/day	
Consumer DN	IEL, long-term	oral	systemic	2,5 mg/kg bw/day	
2082-81-7	Tetramethylene dimethacrylate				
Worker DNEL	., long-term	inhalation	systemic	14,5 mg/m³	
Worker DNEL	., long-term	dermal	systemic	4,2 mg/kg bw/day	
Consumer DN	IEL, long-term	inhalation	systemic	4,3 mg/m³	
Consumer DNEL, long-term		dermal	systemic	2,5 mg/kg bw/day	
Consumer DN	IEL, 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/m³	
Worker DNEL	., long-term	dermal	systemic	0,6 mg/kg bw/day	
Consumer DN	IEL, long-term	oral	systemic	0,3 mg/kg bw/day	
Consumer DN	IEL, long-term	dermal	systemic	0,3 mg/kg bw/day	
Consumer DN	IEL, long-term	inhalation	systemic	0,4 mg/m³	
-	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisetha (4-methylphenyl)amino]	anol and Ethanol 2-[[2	2-(2-hydroxyethoxy)	ethyl]	
Worker DNEL	., long-term	inhalation	systemic	9,8 mg/m³	
Worker DNEL, long-term		dermal	systemic	1,4 mg/kg bw/day	
Consumer DNEL, long-term		inhalation	systemic	2,9 mg/m³	
Consumer DN	IEL, long-term	oral	systemic	0,83 mg/kg bw/day	
Consumer DN	IEL, long-term	dermal	systemic	0,83 mg/kg bw/day	



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PNEC values

CAS No	Substance	
Environment	al compartment	Value
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol	
Freshwater		0,904 mg/l
Marine water		0,904 mg/l
Freshwater s	ediment	6,28 mg/kg
Marine sedin	nent	6,28 mg/kg
Micro-organi	sms in sewage treatment plants (STP)	10 mg/l
Soil		0,727 mg/kg
2082-81-7	Tetramethylene dimethacrylate	
Freshwater		0,043 mg/l
Marine water		0,004 mg/l
Freshwater s	ediment	3,12 mg/kg
Marine sedin	nent	0,312 mg/kg
Micro-organi	sms in sewage treatment plants (STP)	2 mg/l
Soil		0,573 mg/kg
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	
Freshwater		0,017 mg/l
Marine water		0,0017 mg/l
Freshwater s	ediment	0,0783 mg/kg
Marine sedin	nent	0,0072 mg/kg
Soil		0,005 mg/kg
-	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydrough) amino]	roxyethoxy)ethyl]
Freshwater		0,048 mg/l
Marine water		0,005 mg/l
Freshwater s	ediment	0,12 mg/kg
Marine sedin	nent	0,12 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 should be ventilated by technical means.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. Wear safety glasses.



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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: light beige
Odour: characteristic
Odour threshold: No data available

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined
not determined

boiling range:

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:
Gas:

Decomposition temperature:

pH-Value:

not determined
not determined
not determined
not determined
not determined

because the substance is known to be insoluble in water.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density (at 20 °C):

Relative vapour density:

not determined

1,54 g/cm³

not determined

9.2. Other information



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Information with regard to physical hazard classes

Oxidizing properties Not oxidising.

Other safety characteristics

Solid content: not determined Evaporation rate: not determined

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

none

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) 2260,4 mg/kg; ATE (inhalation vapour) 3988,37 mg/l



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CAS No	o Chemical name				
	Exposure route	Dose	Species	Source	Method
27813-02-1	Methacrylic acid, mono	ester with propane-1,	2-diol		
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
2082-81-7	Tetramethylene dimeth	acrylate			
	oral	LD50 10066 mg/kg	Rat		
	dermal	LD50 > 3000 mg/kg	Rabbit		
38668-48-3	1,1'-(p-Tolylimino)dipro	pan-2-ol			
	oral	LD50 > 25 - < 200 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		
-	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]				
	oral	LD50 619 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		

Irritation and corrosivity

Causes serious eye irritation.

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

Sensitising effects

May cause an allergic skin reaction. (Methacrylic acid, monoester with propane-1,2-diol; Tetramethylene dimethacrylate; Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino])

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.



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CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol						
	Acute algae toxicity	ErC50 mg/l	> 97,2		Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 mg/l	> 143		Daphnia magna (Big water flea)		
	Algae toxicity	NOEC	mg/l				
2082-81-7	Tetramethylene dimetha	acrylate					
	Acute algae toxicity	ErC50 mg/l	9,79	72 h			
	Crustacea toxicity	NOEC mg/l	5,09	21 d			
38668-48-3	1,1'-(p-Tolylimino)diprop	an-2-ol					
	Acute fish toxicity	LC50	17 mg/l	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50	245 mg/l		Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	28,8		Daphnia magna (Big water flea)		
	Algae toxicity	NOEC mg/l	57,8		Desmodesmus subspicatus		OECD 201
-	Reaction mass of 2,2'-[((4-methylphenyl)amino]	4-methylph	enyl)imino]bisetha	anol and Ethanol 2-[[2-(2-hydroxyethoxy)et	hyl]
	Acute fish toxicity	LC50 mg/l	> 100	96 h			
	Acute algae toxicity	ErC50 mg/l	> 100	72 h			
	Acute crustacea toxicity	EC50	48 mg/l	48 h			

12.2. Persistence and degradability

The product has not been tested.

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

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol	0,97
2082-81-7	Tetramethylene dimethacrylate	3,1
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	2,1
	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]	2,17

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment



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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)

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

Marine transport (IMDG)

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



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Air transport (ICAO-TI/IATA-DGR)

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. No dangerous good in sense of this transport regulation.

14.4. Packing group:

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: 13,0 % (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.

SECTION 16: Other information

Abbreviations and acronyms

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%

ErC50: EC50 in terms of reduction of growth rate

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

NOEC: No Observed Effect Concentration

OECD: Oragnisation for Economic Co-operation and Development

PBT: persistent, bioaccumulative and toxic vPvB: very persistent and very bioaccumulative PNEC: Predicted No Effect Concentration



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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 Chronic 3: Long-term aquatic hazard, Category 3

Acute Tox. 2: Acute toxicity, Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Category 1 Eye Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Sens. 1: Skin sensitilization, 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
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method

Relevant H and EUH statements (number and full text)

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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: 0218-G03Q-X00E-TSKY

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: MKT Metall-Kunststoff-Technik GmbH & Co. KG

Street: Auf dem Immel 2 Place: D-67685 Weilerbach

Telephone: +49(0)6374-91 16-0 Telefax: +49(0)6374-91 16-60

e-mail: info@mkt.de Internet: www.mkt.de

1.4. Emergency telephone +49 (0) 89-19240 (Giftnotruf München, German and English 24/7)

number:

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

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

5.1. Extinguishing media



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Suitable extinguishing media

Foam

Extinguishing powder

Water spray jet

Carbon dioxide (CO2)

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

Requirements for storage rooms and vessels

Keep container tightly closed.



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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/m³	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			
DNEL type		Exposure route	Effect	Value
94-36-0	Dibenzoyl peroxide			
Consumer DN	Consumer DNEL, long-term		systemic	2 mg/kg bw/day
Worker DNEL, long-term		dermal		13,3 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	39 mg/m³

PNEC values

CAS No	Substance	
Environmenta	Environmental compartment	
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





Appropriate engineering controls

Provide adequate ventilation. If local exhaust ventilation is not possible or not sufficient, the entire working area



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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 not determined

boiling range:

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 not determined Decomposition temperature: pH-Value: not determined The study does not need to be conducted Water solubility:

because the substance is known to be

insoluble in water.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined



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Vapour pressure: not determined

Density (at 20 °C): 1,59 g/cm³

Relative vapour density: not determined

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties
Not oxidising.
Available oxygen content < 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				
		LD50 > 5000 mg/kg	Rat		

Irritation and corrosivity

Causes serious eye irritation.

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

Sensitising effects

May cause an allergic skin reaction. (Dibenzoyl peroxide)

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.

OECD 201 (Desmodesmus subspicatus)

IC10: (0 - 72 h) = 30 mg/lIC50: (0 - 72 h) = 150 mg/l

OECD 202 (Daphnia magna) EC0/NOEC (48h) = 100 mg/l (48h) = >500 mg/lEC50 (48h) = >>500 mg/lEC100

OECD 203 (Danio rerio) : > 500 mg/l

LC0/NOEC (96 h): 250 mg/l LC50 (96 h) : >> 500 mg/l LC100 (96 h)

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		Oncorhynchus mykiss (Rainbow trout)	OECD 203	
	Acute algae toxicity	ErC50 mg/l	0,0711		Pseudokirchneriella subcapitata	OECD 201	
	Acute crustacea toxicity	EC50 mg/l	0,11		Daphnia magna (Big water flea)	OECD 202	
	Algae toxicity	NOEC mg/l	0,02		Pseudokirchneriella subcapitata	OECD 201	
	Crustacea toxicity	NOEC mg/l	0,001		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.

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.



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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

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)

14.1. UN number or ID number:14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.No dangerous good in sense of this transport regulation.



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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.

Marine transport (IMDG)

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

Air transport (ICAO-TI/IATA-DGR)

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

SECTION 16: Other information

Abbreviations and acronyms

ADN: Accord européen relativ 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



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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: Oragnisation 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 sensitilization, 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.

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