

# DECLARATION OF PERFORMANCE DoP No. MKT-520 - en

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

ETA-11/0514, Annex 1
Batch number: see packaging of the product.

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

generic type	post-installed rebar connection	post-installed rebar connection		
for use in	cracked and non-cracked concrete C12/15 - C50/60 (EN 206)			
option	EN 1992-1-1			
loading	static or quasi-static			
material	reinforcing bar (B500 B): covered sizes:	Ø8, Ø10, Ø12, Ø14, Ø16, Ø20, Ø22, Ø24, Ø25		
temperature range (if applicable)	-40 °C to +80 °C			

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

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

- 5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2): --
- 6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V: System 1

- 1 -

7. In case of the declaration of performance concerning a construction product covered by a harmonised standard:

20.06.2013

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

Deutsches Institut für Bautechnik, Berlin

issued

ETA-11/0514

on the basis of

ETAG 001-5, TR 023

The notified body 0756-CPD performed under system 1:

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

and issued:

certificate of conformity 0756-CPD-0445

9. Declared performance:

Essential Characteristics	Design Method	Performance	Harmonized Technical Specification
Design values of bond stress	EN 1992-1-1	ETA-11/0514, Annex 5	ETAG 001

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

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

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

Signed for and on behalf of the manufacturer by:

Stefan Weustenhagen

(General Manager)

Weilerbach, 30.06.2013

L.V. Kingalkel

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



## Safety Data Sheet according to (EC) No 1907/2006 - ISO 11014-1

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sds no.: 432968 V002.1

Revision: 16.07.2012

printing date: 07.02.2014

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

#### 1.1. Product identifier

MKT Injection mortar VMU Plus

MKT Injection mortar VMU Plus, Comp. A

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

Intended use: compound mortar

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

MKT Metall-Kunststoff-Technik GmbH & Co. KG Auf dem Immel 2

D-676853 Weilerbach Phone: +49 (0) 6374/9116-0

E-Mail: Responsible for the safety data sheet: mkt@mkt.de Advisory office in case of poisoning: +49 (0) 89/19240 (Munich)

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification (DPD):

Xi - Irritant

R37 Irritating to respiratory system.

Sensitizing

R43 May cause sensitisation by skin contact.

#### 2.2. Label elements

## Label elements (DPD):

#### Xi - Irritant



#### Risk phrases:

R37 Irritating to respiratory system.

R43 May cause sensitisation by skin contact.

## Safety phrases:

S2 Keep out of the reach of children.

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 Wear suitable gloves.

S46 If swallowed, seek medical advice immediately and show this container or label.

#### Contains:

Ethylene dimethacrylate, Hydroxypropyl methacrylate

#### 2.3. Other hazards

Persons suffering from allergic reactions to acrylates should avoid contact with the product.

## **SECTION 3: Composition/information on ingredients**

#### General chemical description:

Resin

## Base substances of preparation:

Methacrylate Inorganic fillers

## Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Ethylene dimethacrylate	202-617-2	> 10-< 20 %	Specific target organ toxicity - single
97-90-5			exposure 3
			H335
			Skin sensitizer 1
			H317
Hydroxypropyl methacrylate	248-666-3	> 1-< 10 %	Skin sensitizer 1; Dermal
27813-02-1			H317
			Serious eye irritation 2
			H319
1,1'-(p-Tolylimino)dipropan-2-ol 38668-48-3	254-075-1	> 1-< 3 %	No data available.
4-tert-Butylpyrocatechol	202-653-9	> 0,1-< 2,5 %	Acute toxicity 4; Oral
98-29-3			H302
			Acute toxicity 3; Dermal
			H311
			Skin corrosion 1B
			H314
			Chronic hazards to the aquatic environment 2
			H411

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ethylene dimethacrylate 97-90-5	202-617-2	> 10 - < 20 %	Xi - Irritant; R37 R43
Hydroxypropyl methacrylate 27813-02-1	248-666-3	> 1 -< 10 %	Xi - Irritant; R36, R43
1,1'-(p-Tolylimino)dipropan-2-ol 38668-48-3	254-075-1	> 1 -< 3 %	R52/53 T - Toxic; R25 Xi - Irritant; R36
4-tert-Butylpyrocatechol 98-29-3	202-653-9	> 0,1 -< 2,5 %	C - Corrosive; R34 Xn - Harmful; R21/22 N - Dangerous for the environment; R51/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'. Substances without classification may have community workplace exposure limits available.

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### General information:

In case of adverse health effects seek medical advice.

#### Inhalation:

Move to fresh air, consult doctor if complaint persists.

#### Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

## Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remains (intensive smarting, sensivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

## Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

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

See section: Description of first aid measures

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media Suitable extinguishing media:

carbon dioxide powder Fine water spray water spray jet

#### Extinguishing media which must not be used for safety reasons:

High pressure waterjet foam

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

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

## 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

## **SECTION 6: Accidental release measures**

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

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Wear protective equipment.

Danger of slipping on spilled product.

## 6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

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

Remove mechanically.

Dispose of contaminated material as waste according to Chapter 13.

#### 6.4. Reference to other sections

See advice in chapter 8

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Avoid skin and eye contact.

Ensure that workrooms are adequately ventilated.

#### Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

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

Store in a cool, dry place.

store in dark

Temperatures between + 5 °C and + 25 °C

Keep container in a well ventilated place.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

## 7.3. Specific end use(s)

compound mortar

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

## 8.1. Control parameters

Valid for

Great Britain

None

## 8.2. Exposure controls:

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Combination filter: ABEKP

This recommendation should be matched to local conditions.

#### Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s). Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

In the case of longer contact protective gloves made from butyl rubber are recommended according to EN 374.

Perforation time > 60 minutes

material thickness > 0.7 mm

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

Skin protection:

Suitable protective clothing

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Appearance paste

pasty light beige

Odor characteristic

pH No data available / Not applicable
Initial boiling point No data available / Not applicable
Flash point No data available / Not applicable
Decomposition temperature No data available / Not applicable
Vapour pressure No data available / Not applicable

Density 1,52 - 1,68 g/cm3 (23 °C (73.4 °F))

Bulk density
No data available / Not applicable
Viscosity
No data available / Not applicable
Viscosity (kinematic)
No data available / Not applicable
Explosive properties
No data available / Not applicable

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Solidification temperature No data available / Not applicable No data available / Not applicable Melting point No data available / Not applicable Flammability Auto-ignition temperature No data available / Not applicable Explosive limits No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable No data available / Not applicable Evaporation rate No data available / Not applicable Vapor density No data available / Not applicable Oxidising properties

#### 9.2. Other information

No data available / Not applicable

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Reacts with strong oxidants.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

See section reactivity

#### 10.4. Conditions to avoid

None if used for intended purpose.

## 10.5. Incompatible materials

None if used properly.

## 10.6. Hazardous decomposition products

None known

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

## General toxicological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Persons suffering from allergic reactions to acrylates should avoid contact with the product.

#### Inhalative toxicity:

Irritating to respiratory system

#### **Sensitizing:**

May cause sensitization by skin contact.

## **SECTION 12: Ecological information**

## General ecological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Do not empty into drains, soil or bodies of water.

### 12.1. Toxicity

Hazardous components	Value	Value	Acute	Exposure	Species	Method
CAS-No.	type		Toxicity	time		
			Study			
Ethylene dimethacrylate	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline
97-90-5						203 (Fish, Acute
						Toxicity Test)
Hydroxypropyl methacrylate	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	
27813-02-1						
1,1'-(p-Tolylimino)dipropan-	EC50	28,8 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
2-ol						202 (Daphnia sp.
38668-48-3						Acute
						Immobilisation
						Test)
4-tert-Butylpyrocatechol	EC50	1,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
98-29-3						202 (Daphnia sp.
						Acute
						Immobilisation
						Test)

## 12.2. Persistence and degradability

Hazardous components	Result	Route of	Degradability	Method
CAS-No.		application		

Ethylene dimethacrylate 97-90-5	readily biodegradable	aerobic	98 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

#### 12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Ethylene dimethacrylate 97-90-5	2,21					
Hydroxypropyl methacrylate 27813-02-1	0,97					
4-tert-Butylpyrocatechol 98-29-3	2,94					

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substances

## **SECTION 14: Transport information**

## General information:

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

## **SECTION 15: Regulatory information**

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

VOC content 0,0 %

(VOCV 814.018 VOC regulation

CH)

## **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

R21/22 Harmful in contact with skin and if swallowed.

R25 Toxic if swallowed.

R34 Causes burns.

R36 Irritating to eyes.

R37 Irritating to respiratory system.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

#### **Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

## Safety Data Sheet according to (EC) No 1907/2006 - ISO 11014-1

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sds no.: 431953

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## MKT Injection mortar VMU Plus

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

#### 1.1. Product identifier

MKT Injection mortar VMU Plus, Comp. A

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

Intended use: compound mortar

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

MKT Metall-Kunststoff-Technik GmbH & Co. KG

Auf dem Immel 2 D-67685 Weilerbach Phone: +49 (0) 6374/9116-0

E-Mail: Responsible for the safety data sheet: mkt@mkt.de Advisory office in case of poisoning: +49 (0) 89/19240 (Munich)

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification (DPD):

Sensitizing

R43 May cause sensitisation by skin contact.

#### 2.2. Label elements

### Label elements (DPD):

#### Xi - Irritant



#### Risk phrases:

R43 May cause sensitisation by skin contact.

#### Safety phrases:

S2 Keep out of the reach of children.

S3/7 Keep container tightly closed in a cool place.

S14 Keep away from dirt, rust, alkalis, acids and accelerators.

S24/25 Avoid contact with skin and eyes.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.

#### Contains:

Dibenzoyl peroxide

#### 2.3. Other hazards

Persons suffering from allergic reactions to peroxides should avoid contact with the product.

## **SECTION 3: Composition/information on ingredients**

#### General chemical description:

Hardener

## Base substances of preparation:

Dibenzoyl peroxide Inorganic fillers

## Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dibenzoyl peroxide	202-327-6	>= 10-< 20 %	Organic peroxides B
94-36-0	01-2119511472-50		H241
			Serious eye irritation 2
			H319
			Acute hazards to the aquatic environment 1
			H400
			Skin sensitizer 1
			H317
2-ethylhexyl benzoate 5444-75-7	226-641-8	< 5 %	Chronic hazards to the aquatic environment 4 H413
Oxydipropyl dibenzoate 27138-31-4	248-258-5	< 2,5 %	Chronic hazards to the aquatic environment 2 H411

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

#### Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Dibenzoyl peroxide	202-327-6	> 10 - < 20 %	E - Explosive; R3
94-36-0	01-2119511472-50		Xi - Irritant; R36
			O - Oxidizing; R7
			R43
			N - Dangerous for the environment; R50
2-ethylhexyl benzoate	226-641-8	< 5 %	
5444-75-7			
Oxydipropyl dibenzoate	248-258-5	< 2,5 %	N - Dangerous for the environment; R51/53
27138-31-4			

For full text of the R-Phrases indicated by codes see section 16 'Other Information'. Substances without classification may have community workplace exposure limits available.

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse the mouth. Drink 1-2 glasses of water.

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

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

## Suitable extinguishing media:

powder

Carbon dioxide.

water spray jet

Fine water spray

#### Extinguishing media which must not be used for safety reasons:

foam

High pressure waterjet

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

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

#### **Additional information:**

Dispose of combustion residues and contaminated fire-fighting water in accordance with statutory regulations.

## **SECTION 6: Accidental release measures**

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

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Wear protective equipment.

Danger of slipping on spilled product.

## 6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

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

Remove mechanically.

Dispose of contaminated material as waste according to Chapter 13.

#### 6.4. Reference to other sections

See advice in chapter 8

## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Avoid skin and eye contact.

Throw out sparks on burning.

#### Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

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

Store in sealed original container protected against moisture.

Storage at 5 to 25°C is recommended.

store in dark

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

Do not store together with highly flammable substances (F or F+).

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

compound mortar

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

## 8.1. Control parameters

Valid for

Great Britain

Ingredient	ppm	mg/m <sup>3</sup>	Type	Category	Remarks
GLYCEROL, MIST		10	Time Weighted Average		EH40 WEL
56-81-5			(TWA):		

## **Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	-	Value	Value			Remarks
			mg/l	ppm	mg/kg	others	
Dibenzoyl peroxide 94-36-0	aqua (marine water)					0,0602 μg/L	
Dibenzoyl peroxide 94-36-0	aqua (intermittent releases)					0,602 μg/L	
Dibenzoyl peroxide 94-36-0	STP					0,35 mg/L	
Dibenzoyl peroxide 94-36-0	sediment (freshwater)				0,338 mg/kg		
Dibenzoyl peroxide 94-36-0	soil				0,0758 mg/kg		
Dibenzoyl peroxide 94-36-0	oral					6,67 mg/kg food	

## **Derived No-Effect Level (DNEL):**

Name on list	Area Exposure Time		Value	Remarks		
Dibenzoyl peroxide 94-36-0	worker	inhalation	Long term exposure - systemic effects		11,75 mg/m3	
Dibenzoyl peroxide 94-36-0	worker	dermal	Long term exposure - systemic effects		6,6 mg/kg bw/day	
Dibenzoyl peroxide 94-36-0	general population	inhalation	Long term exposure - systemic effects		2,9 mg/m3	
Dibenzoyl peroxide 94-36-0	general population	dermal	Long term exposure - systemic effects		3,3 mg/kg bw/day	
Dibenzoyl peroxide 94-36-0	general population	oral	Long term exposure - systemic effects		1,65 mg/kg bw/day	

#### 8.2. Exposure controls:

#### Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Combination filter: ABEKP

This recommendation should be matched to local conditions.

#### Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s). Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

In the case of longer contact protective gloves made from butyl rubber are recommended according to EN 374.

Perforation time > 60 minutes material thickness > 0.7 mm

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

#### Eye protection:

Goggles which can be tightly sealed.

#### Skin protection:

Suitable protective clothing

### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Appearance paste

paste black

Odor characteristic

рΗ No data available / Not applicable Initial boiling point No data available / Not applicable 116 °C (240.8 °F); no method Flash point No data available / Not applicable Decomposition temperature Vapour pressure No data available / Not applicable No data available / Not applicable Density No data available / Not applicable Bulk density No data available / Not applicable Viscosity Viscosity (kinematic) No data available / Not applicable No data available / Not applicable Explosive properties

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Solidification temperature No data available / Not applicable No data available / Not applicable Melting point Flammability No data available / Not applicable Auto-ignition temperature No data available / Not applicable Explosive limits No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable No data available / Not applicable Evaporation rate No data available / Not applicable Vapor density Oxidising properties No data available / Not applicable

#### 9.2. Other information

No data available / Not applicable

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Reaction with oxidants.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

See section reactivity

#### 10.4. Conditions to avoid

Temperatures over appr. 80  $^{\circ}\mathrm{C}$ 

#### 10.5. Incompatible materials

None if used properly.

## 10.6. Hazardous decomposition products

None known

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

#### General toxicological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following. Persons suffering from allergic reactions to peroxides should avoid contact with the product.

## Eye irritation:

Primary eye irritation: slightly irritating, does not require labeling

## Sensitizing:

May cause sensitization by skin contact.

## Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Oxydipropyl dibenzoate	LD50	3.914 mg/kg	oral		rat	OECD Guideline 401 (Acute
27138-31-4	LC50	> 200 mg/l	inhalation	4 h	rat	Oral Toxicity)
	LD50	> 2.000  mg/kg	dermal		rat	OECD Guideline 402 (Acute
						Dermal Toxicity)

#### Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

#### Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	slightly irritating			OECD Guideline 405 (Acute Eye Irritation / Corrosion)

#### Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Dibenzoyl peroxide 94-36-0	sensitising	Mouse local lymphnod e assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Oxydipropyl dibenzoate 27138-31-4	not sensitising		guinea pig	OECD Guideline 406 (Skin Sensitisation)

## Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	negative negative negative	mammalian cell gene mutation assay bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	with and without with and without with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

## Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Oxydipropyl dibenzoate 27138-31-4	NOAEL=> 1000 mg/kg	oral: feed	90 days daily		OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

## **SECTION 12: Ecological information**

## General ecological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Do not empty into drains, soil or bodies of water.

The product has, according to valid regulations and assumed from available information, been estimated as non-hazardous to the environment.

## 12.1. Toxicity

Hazardous components	Value	Value	Acute	Exposure	Species	Method
CAS-No.	type		Toxicity	time		
			Study			
Dibenzoyl peroxide	LC50	0,06 mg/l	Fish	96 h		OECD Guideline
94-36-0						203 (Fish, Acute
						Toxicity Test)
Dibenzoyl peroxide	EC50	0,11 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
94-36-0						202 (Daphnia sp.
						Acute
						Immobilisation
						Test)
Dibenzoyl peroxide	EC50	0,06 mg/l	Algae	72 h		OECD Guideline
94-36-0						201 (Alga, Growth
						Inhibition Test)
Oxydipropyl dibenzoate	LC50	3,7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline
27138-31-4		· ·				203 (Fish, Acute
						Toxicity Test)
Oxydipropyl dibenzoate	EC50	19,3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
27138-31-4			-			202 (Daphnia sp.
						Acute
						Immobilisation
						Test)
Oxydipropyl dibenzoate	EC50	15 mg/l	Algae	72 h	Selenastrum capricornutum	OECD Guideline
27138-31-4		, , ,		1	(new name: Pseudokirchnerella	201 (Alga, Growth
					subcapitata)	Inhibition Test)

## 12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Dibenzoyl peroxide 94-36-0	readily biodegradable		> 60 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Oxydipropyl dibenzoate 27138-31-4	readily biodegradable	aerobic	87 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

## 12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Dibenzoyl peroxide 94-36-0		66,6		fish		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Dibenzoyl peroxide 94-36-0	3,46					and again a surf
2-ethylhexyl benzoate 5444-75-7	6,1					OECD Guideline 107 (Partition Coefficient (noctanol / water), Shake Flask Method)
Oxydipropyl dibenzoate 27138-31-4	3,9					OECD Guideline 117 (Partition Coefficient (noctanol / water), HPLC Method)

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substances

## **SECTION 14: Transport information**

#### **General information:**

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

## SECTION 15: Regulatory information

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

VOC content 0,0 %

(VOCV 814.018 VOC regulation

CH)

## **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.

R36 Irritating to eyes.

R43 May cause sensitisation by skin contact.

R50 Very toxic to aquatic organisms.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R7 May cause fire.

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.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

#### **Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.