

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

**Ripple V FIX – Vinyl Ester 10:1**

MSDS No. : 432968

V002.1

Revision: 16.07.2012

Printing date: 25.07.2012

## SECTION 1

### Identification of the substance/mixture & of the company/undertaking

#### 1.1. Product identifier

Ripple V FIX – Component A - BASE

#### 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

Ripple Construction Products Pvt Ltd

EWS 4, B. K. Guda, S. R. Naagar,

Hyderabad 500 038, Andhra Pradesh, India

Phone: ++91 (40) 64600006

E-Mail: Responsible for the safety data sheet: [marketing@rippleinfra.com](mailto:marketing@rippleinfra.com)

## 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.

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

**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:**

<b>Hazardous components CAS-No.</b>	<b>EC Number REACH-Reg No.</b>	<b>Content</b>	<b>Classification</b>
Ethylene dimethacrylate 97-90-5	202-617-2	> 10- < 20 %	Specific target organ toxicity - single exposure 3 H335 Skin sensitizer 1 H317
Hydroxypropyl methacrylate 27813-02-1	248-666-3	> 1- < 10 %	Skin sensitizer 1; Dermal H317 Serious eye irritation 2 H319
1,1'-(p-Tolylimino)dipropyl-2-ol 38668-48-3	254-075-1	> 1- < 3 %	No data available
4-tert-Butylpyrocatechol 98-29-3	202-653-9	> 0,1- < 2,5 %	Acute toxicity 4; Oral 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:**

<b>Hazardous components CAS-No.</b>	<b>EC Number REACH-Reg No.</b>	<b>Content</b>	<b>Classification</b>
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)dipropyl-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. Skin care. Remove contaminated clothes immediately.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remains (intensive smarting, sensitivity 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, water spray jet, fine water spray

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 (CO<sub>2</sub>) can be released.

### **5.3. Advice for fire-fighters**

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.  
Danger of slipping on spilled product.  
Wear protective equipment.

#### **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.  
Ventilate working rooms 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.  
Storage temperatures between at +5°C to 25°C is recommended.  
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

Consistency pasty

Colour	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(23 °C (73.4 °F))	1.52 to 1.68 g/cm <sup>3</sup>
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
Melting point	No data available / Not applicable
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
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable
<b>9.2. Other information</b>	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 CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Ethylene dimethacrylate 97-90-5	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	
1,1'-(p-Tolylimino)dipropen-2-ol 38668-48-3	EC50	28,8 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4-tert-Butylpyrocatechol 98-29-3	EC50	1,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)



## 12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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 Bio accumulative Potential / 12.4 Mobility in soil

Hazardous components CAS-No.	Log Kow	Bio Concentration 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 and other dangerous substances

## SECTION 14

### Transport information

#### General Information:

Not hazardous according to RID, ADR, ADN, 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.

The product is intended for industrial use.

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

**Ripple V FIX – Vinyl Ester 10:1**

MSDS No. : 432968

V002.1

Revision: 16.07.2012

Printing date: 25.07.2012

## SECTION 1

### Identification of the substance/mixture & of the company/undertaking

#### 1.1. Product identifier

Ripple V FIX – Component B - HARDENER

#### 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

Ripple Construction Products Pvt Ltd

EWS 4, B. K. Guda, S. R. Naagar,

Hyderabad 500 038, Andhra Pradesh, India

Phone: ++91 (40) 64600006

E-Mail: Responsible for the safety data sheet: [marketing@rippleinfra.com](mailto:marketing@rippleinfra.com)

## SECTION 2

### Hazards identification

#### 2.1. Classification of the substance or mixture Classification (DPD):

**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 amines 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 94-36-0	202-327-6 01-2119511472-50	$\geq 10 - < 20 \%$	Organic peroxides B - 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 94-36-0	202-327-6 01-2119511472-50	$\geq 10 - < 20$ %	E - Explosive; R3 Xi - Irritant; R36 O - Oxidizing; R7 R43 N - Dangerous for the environment; R50
2-ethylhexyl benzoate 5444-75-7	226-641-8	$< 5$ %	
Oxydipropyl dibenzoate 27138-31-4	248-258-5	$< 2.5$ %	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. Skin care. Remove contaminated clothes immediately. 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 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

##### 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

### Fire fighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media:**

carbon dioxide, powder, water spray jet, fine water spray

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

High pressure water jet, foam

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

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) can be released.

#### 5.3. Advice for fire-fighters

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.

Danger of slipping on spilled product.

Wear protective equipment.

#### 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.  
Store in a cool, dry place.  
Storage at 5 to 25°C is recommended.  
Do not store together with highly flammable substances (F or F+)  
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

Ingredient	PPM	mg/m3	Type	Category	Remarks
GLYCEROL, MIST 56-81-5		10	Time Weighted Average (TWA)		EH40 WEL

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

Name on list	Environmental Compartment	Exposure period	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						6,67 mg/kg food	



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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Dibenzoyl peroxide 94-36-0	worker	inhalation	Long term exposure - systemic effects		11,75 mg/m <sup>3</sup>	
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/m <sup>3</sup>	
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
Consistency	paste
Colour	Black
Odor	Characterstic
pH	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	116 °C (240.8 °F); no method
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density(23 °C (73.4 °F))	No data available/ Not applicable
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
Melting point	No data available / Not applicable
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
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

#### 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

Temperatures over approximately. 80 °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 labelling

##### 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 27138-31-4	LD50	3.914 mg/kg	oral	4 h	rat	OECD Guideline 401 (Acute Oral Toxicity) OECD
	LC50	> 200 mg/l	inhalation		rat	
	LD50	> 2.000 mg/kg	dermal		rat	Guideline 402 (Acute Dermal Toxicity)

##### Skin corrosion/irritation:

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

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Results	Test Type	Species	Method
Dibenzoyl peroxide 94-36-0	sensitising	Mouse local lymphnode assay (LLNA)	Mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Oxydipropyl dibenzoate 27138-31-4	Non- sensitising		Guinea Pig	OECD Guideline 406 (Skin Sensitisation)

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Results	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Oxydipropyl dibenzoate 27138-31-4	negative	mammalian cell gene mutation assay bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	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.	Results	Route of Application	Exposure time/ Frequency of Treatment	Species	Method
Oxydipropyl dibenzoate 27138-31-4	NOAEL= <1000 mg/kg	Oral feed	90 days daily	rat	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. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

#### 12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Dibenzoyl peroxide 94-36-0	LC50	0.06 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Dibenzoyl peroxide 94-36-0	EC50	0.11 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Dibenzoyl peroxide 94-36-0	EC50	0.06 mg/l	Algae	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
Oxydipropyl dibenzoate 27138-31-4	LC50	3.7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Oxydipropyl dibenzoate 27138-31-4	EC50	19.3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Oxydipropyl dibenzoate 27138-31-4	EC50	15 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth 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.	Log Kow	Bio Concentration Factor (BCF)	Exposure time	Species	Temperature	Method
Dibenzoyl peroxide 94-36-0	3.46					OECD Guideline 305 (Bioconcentration: Flowthrough Fish Test)
Dibenzoyl peroxide 94-36-0						
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 and 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%  
(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.

The product is intended for industrial use.