

Date of issue: 28.11.2011 Revision: 07.12.2018

Version: 8

# **Safety Data Sheet**

According to REACH Regulation No. 1907/2006/EC as amended by Regulation 2015/830/EC

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

#### 1.1. Product identifier

Trade name: R-KER, RV200; R-KER-S, RV200-S; R-KER-W, RV200-W

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

Chemical anchoring system for building industry

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

Rawlplug S.A. ul. Kwidzyńska 6 51-416 Wrocław

Poland

Telephone number (Fax)

+48 (0) 71 32 60 100 (+48 (0) 71 37 26 111)

E-mail address of competent person

responsible for the SDS infochem@rawlplug.com

**1.4. Emergency telephone number:** 0048 661 970 365 (Monday-Friday: 8.00-16.00, English)

#### **Section 2: Hazards identification**

## 2.1. Classification of the substance or mixture

# Classification according to Commision Regulation (EC) No. 1272/2008:

| Org. Perox. E     | H242 | Heating may cause a fire                          |
|-------------------|------|---|
| Aquatic Chronic 3 | H412 | Harmful to aquatic life with long lasting effects |
| Skin Sens. 1      | H317 | May cause an allergic skin reaction               |
| STOT SE 3         | H335 | May cause respiratory irritation                  |
| Eye Irrit. 2      | H319 | Causes serious eye irritation                     |
| Aquatic acute 1   | H400 | Very toxic to aquatic life                        |
|                   |      |   |

#### 2.2. Label elements

GHS pictograms:







Signal word: Warning

### Hazard statements:

| H242   | Heating may cause a fire                               |
|--------|--|
| H317   | May cause an allergic skin reaction                    |
| H319   | Causes serious eye irritation                          |
| H335   | May cause respiratory irritation                       |
| H400   | Very toxic to aquatic life                             |
| H412   | Harmful to aquatic life with long lasting effects      |
| EUH208 | Contains HPMA, 4-TBC, ethylene dimethacrylate and BPO. |
|        | May produce an allergic reaction.                      |
|        |  |





Precautionary statements:

Prevention:

P273 Avoid release to the environment

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection

Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician

if you feel unwell.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in

a position comfortable for breathing

Storage:

Disposal: P501 Dispose of contents/container to

local/regional/national/international regulations.

**Dangerous substances: BPO HPMA** 

4-TBC

Ethylene dimethacrylate

2.3. Other hazards This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

# Section 3: : Composition/information on ingredients

#### 3.1. Substances Not applicable

## 3.2. Mixtures

| Product identifiers  | Ingredient name  | Content | Classification  |  |  |  |
|--|--|---------|---|--|--|--|
| Froduct identifiers  | oddet identifiers ingredient name                              |         | (EC) 1272/2008 [CLP]  |  |  |  |
| Component A  |  |         |   |  |  |  |
| CAS: 27813-02-1<br>WE: 248-666-3<br>Reg. nr.: 01-<br>2119490226-37 | Methacrylic acid, monoester<br>with propane-1,2-diol<br>(HPMA) | < 14,5  | Eye Irrit. 2, H319; Skin Sens. 1, H317  |  |  |  |
| CAS: 97-90-5<br>WE: 202-617-2<br>Reg. nr.: 01-<br>2119965172-38    | Ethylene dimethacrylate  | < 14,5  | Skin Sens. 1, H317; STOT SE 3, H335 (C >=10%)   |  |  |  |
| CAS: 3077-12-1<br>WE: 221-359-1<br>Reg. nr.:-                      | 2,2'-[(4-methylphenyl)<br>imino]-bisethanol                    | < 1,6   | Acute Tox. 3, H301, Eye Dam. 1, H318  |  |  |  |
| CAS: 38668-48-3<br>WE: 254-075-1<br>Reg. nr.: -                    | 1,1'-(p-tolylimino)dipropan-<br>2-ol                           | < 1,0   | Acute Tox. 2, H300; Eye Irrit. 2, H319; Aquatic Chronic 3, H412   |  |  |  |
| CAS: 398475-96-2<br>Reg. nr.: -                                    | 1,2-Ethanediamine, polymer with aziridine                      | <0,6    | Aquatic Chronic 2, H411; Eye Irrit, 2; H319   |  |  |  |
| CAS: 108-65-6<br>Reg. nr.: 01-<br>2119475791-29                    | 2-methoxy-1methylethyl<br>acetate                              | <0,3    | Flam. Liq. 3, H226; STOT SE 3; H336   |  |  |  |
| CAS: 27813-02-1<br>WE: 248-666-3<br>Reg. nr.: 01-<br>2119490226-37 | 4- <i>tert</i> -butylcatechol (4-TBC)                          | <0,16   | Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr.<br>1B, H314; Skin Sens. 1, H317; Aquatic Acute 1,<br>H400; Aquatic Chronic 1, H410 |  |  |  |







|               | Component B               |       |  |  |  |  |  |
|---------------|---------------------------|-------|--|--|--|--|--|
| Index number: |                           |       |  |  |  |  |  |
| 617-008-00-0  | Dibanasıdın anavida (DDO) | 15-20 | Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, |  |  |  |  |
| WE: 202-327-6 | Dibenzoyl peroxide (BPO)  | 15-20 | H317; Aquatic Acute 1, H400                            |  |  |  |  |
| CAS: 94-36-0  |                           |       |  |  |  |  |  |
| Index number: |                           |       |  |  |  |  |  |
| 603-027-00-1  | Ethodoro alvori           | < 10  | Acute Tox. 4, H302; STOT RE 2, H373                    |  |  |  |  |
| WE: 203-473-3 | Ethylene glycol           | \ 10  | Acute 10x. 4, H302, 3101 KE 2, H373                    |  |  |  |  |
| CAS: 107-21-1 |                           |       |  |  |  |  |  |

Additional information: For the wording of the listed phrases refer to section 16.

#### **Section 4: First aid measures**

contact:

# 4.1. Description of first aid measures

General notes: Remove/Take off immediately all contaminated clothing.

Following inhalation: Move the exposed individual to the fresh air and keep at rest in a position comfortable

> for breathing. If not breathing, breathing is irregular or respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery

position and get medical attention immediately. Contact toxicology center.

Following skin Wash with plenty of soap and water for at least 10 minutes. Remove contaminated

clothing and shoes. In case irritation or any complaints occur, get medical attention and

avoid further exposure.

Following eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove

any contact lenses. Get medical attention.

Following ingestion: Wash out mouth with water. Move the exposed individual to the fresh air and keep at rest

> in position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low, so that the vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Loosen

tight clothing (e.g. tie, belt). Get medical attention.

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

Product can cause irritation to eyes, skin and respiratory system. It can also lead to skin sensitization. After exposure, symptoms can be delayed. Contact with eyes can result in eye erythema and excessive lacrimation. Exposure of inhalation routes can cause coughing. Prolonged exposure of skin can cause erythema. Lack of data on symptoms

occurring after ingestion.

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

In case of inhalation of decomposition products, symptoms may be delayed. Exposed individual may need to be kept under medical surveillance for 48 hours.

#### Section 5: Firefighting measures

# 5.1. Extinguishing media

Suitable extinguishing

media: Use dry chemical (ABC powder) or CO<sub>2</sub>, optionally spray mist water.

Unsuitable

extinguishing media: Unknown

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

I case of exposition on an open flame, a pressure rise and a packaging may explode. Moreover, hazardous decomposition products can arise: e.g. carbon oxides, unidentified

hydrocarbons.











#### 5.3. Advice for firefighters

Use full protective clothing compliant with EN 469 standard. Wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode. Product containers exposed to heat cool with water.

#### **Section 6: Accidental release measures**

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

For non-emergency personnel:

No action involving any health risk shall be taken through contact with product. Avoid contact with product without personal protective equipment, in case of contact with large product or ventilation is insufficient. Avoid breathing vapours.

For emergency responders:

Disposal of product spillage should be taken only if personal protective equipment described in section 8 is available.

#### 6.2. Environmental precautions

Avoid dispersal of spilled material and it's contact with soil, sewers, surface and ground water. Inform the relevant authorities if the product has caused environmental pollution.

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

Secure drains and sewers. Collect product mechanically (e.g. with shovel) together with contaminated soil. Possible spillages absorb with inert, absorbent material (e.g. sand, earth, diatomaceous earth) and place in an appropriate waste disposal container according to local regulations. For further information see section 13

#### 6.4. Reference to other sections

See section 8 for information on appropriate personal protective equipment. See section 13 for additional waste treatment information.

# **Section 7: Handling and storage**

#### 7.1. Precautions for safe handling

Put on an appropriate personal protective equipment (see section 8). Persons with a history of skin sensitization problems should avoid contact with product. Do not allow product to contact eyes or skin. Avoid breathing vapours released during curing process. Use only in places with sufficient ventilation. Wear appropriate respirator when ventilation is inadequate. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Follow the manufacturer's instructions for use of product. Keep product in the original container. Do not use product after the expiration date.

# 7.2. Conditions for safe storage, including any incompatibilities

Store in original container, keep tightly closed when not in use. Protect from direct sunlight and other heat sources in dry, well-ventilated area, away from incompatible materials, food and drink. Store at 5-25 °C. To ensure product stability avoid temperature fluctuation during storage (overheating and undercooling).

#### 7.3. Specific end use(s) See Section 1







# Section 8: Exposure controls/personal protection

# 8.1. Control parameters

|   | Long-term ex   | posure      | Short-term exposure |     |                   |
|---|----------------|-------------|---------------------|-----|-------------------|
| Ingredient name                           | mg/m³          | ppm         | mg/m³               | ppm | Comments          |
|   | Dibenzoyl      | peroxide    |                     |     |                   |
| Austria/Denmark                           | 5              | -           | 10                  | -   | Inhalable aerosol |
| Belgium/France/USA (NIOSH)/United Kingdom | 5              | ı           | -                   | 1   | -                 |
| Germany/Hungary/Switzerland               | 5              | 1           | 5                   | ı   | Inhalable aerosol |
|   | Ethylene glyd  | ol (vapou   | ır)                 |     |                   |
| Austria/Denmark/Germany/Switzerland       | 26             | 10          | 52                  | 20  | •                 |
| France/Ireland/United Kingdom             | 52             | 20          | 104                 | 40  | -                 |
| Sweden                                    | 25             | 10          | 50                  | 20  | -                 |
|   | Ethylene glyco | l (particul | ate)                |     |                   |
| Belgium/Latvia                            | 52             | 20          | 104                 | 40  | •                 |
| Germany/Switzerland                       | 26             | 10          | 52                  | 20  | -                 |
| Hungary                                   | 10             | -           | 104                 | -   | -                 |
| Sweden                                    | 25             | 10          | 50                  | 20  | -                 |
| United Kingdom                            | 10             | -           | -                   | -   | -                 |

# DN(M)ELs

| Ingredient name      | Route of exposure | Value                   | Group     | Effect                |
|----------------------|-------------------|-------------------------|-----------|-----------------------|
|                      | Oral              | 1,65 mg/kg              | Consumers | Systematic, long-term |
|                      | Dermal            | 3,3 mg/kg               | Consumers | Systematic, long-term |
| Dibenzoyl peroxide   |                   | 6,6 mg/kg               | Workers   | Systematic, long-term |
|                      | Inhalation        | 2,9 mg/m <sup>3</sup>   | Consumers | Systematic, long-term |
|                      |                   | 11,75 mg/m <sup>3</sup> | Workers   | Systematic, long-term |
|                      | Inhalation        | 14,7 mg/m <sup>3</sup>  | Workers   | Systematic, long-term |
| Methacrylic acid,    |                   | 8,8 mg/m <sup>3</sup>   | Consumers | Systematic, long-term |
| monoester with       | Dermal            | 4,2 mg/kg               | Workers   | Systematic, long-term |
| propane-1,2-diol     |                   | 2,5 mg/kg               | Consumers | Systematic, long-term |
|                      | Oral              | 2,5 mg/kg               | Consumers | Systematic, long-term |
|                      | Inhalation        | 2,45 mg/m <sup>3</sup>  | Workers   | Systematic, long-term |
| Ethylene             |                   | 1,47 mg/m <sup>3</sup>  | Consumers | Systematic, long-term |
| dimethacrylate       | Dermal            | 1,3 mg/kg               | Workers   | Systematic, long-term |
| diffictflactylate    |                   | 100 mg/kg               | Consumers | Systematic, long-term |
|                      | Oral              | 100 mg/kg               | Consumers | Systematic, long-term |
|                      | Dermal            | 2 mg/m <sup>3</sup>     | Workers   | Systematic, long-term |
| 1,1'-(p-             |                   | 0,4 mg/m <sup>3</sup>   | Consumers | Systematic, long-term |
| tolylimino)dipropan- | Inhalation        | 0,6 mg/kg               | Workers   | Systematic, long-term |
| 2-ol                 |                   | 0,3 mg/kg               | Consumers | Systematic, long-term |
|                      | Oral              | 0,3 mg/kg               | Consumers | Systematic, long-term |
|                      | Dermal            | 53 mg/kg                | Consumers | Systematic, long-term |
| Ethylene glycol      |                   | 106 mg/kg               | Workers   | Systematic, long-term |
| . , ,                | Inhalation        | 35 mg/m <sup>3</sup>    | Workers   | Local, long-term      |
|                      |                   | 7 mg/m <sup>3</sup>     | Consumers | Local, short-term     |

# **PNECs**

|                    | Environmental protection target | Value       |
|--------------------|---------------------------------|-------------|
| Dibenzoyl peroxide | Fresh water                     | 0,602 μg/l  |
|                    | Marine water                    | 0.0602 ug/l |







|                                  | Intermittent releases  | 0,602 μg/l    |
|----------------------------------|------------------------|---------------|
|                                  | Freshwater sediments   | 0,338 mg/kg   |
|                                  | Marine water sediments | 0,0338 mg/kg  |
|                                  | STP                    | 0,35 mg/l     |
|                                  | Soil                   | 0,0758 mg/kg  |
|                                  | Fresh water            | 0,904 mg/l    |
|                                  | Marine water           | 0,904 mg/l    |
| Mathaerylic acid manageter with  | Intermittent releases  | 0,972 mg/l    |
| Methacrylic acid, monoester with | Freshwater sediments   | 6,28 mg/kg    |
| propane-1,2-diol                 | Marine water sediments | 6,28 mg/kg    |
|                                  | STP                    | 10 mg/l       |
|                                  | Soil                   | 0,727 mg/kg   |
|                                  | Fresh water            | 0,139 mg/l    |
|                                  | Marine water           | 0,0139 mg/l   |
|                                  | Intermittent releases  | 0,15 mg/l     |
| Ethylene dimethacrylate          | Freshwater sediments   | 1,6 mg/kg     |
|                                  | Marine water sediments | 0,16 mg/kg    |
|                                  | STP                    | 57 mg/l       |
|                                  | Soil                   | 0,239 mg/kg   |
| 1,1'-(p-tolylimino)dipropan-2-ol | Fresh water            | 0,017 mg/l    |
|                                  | Marine water           | 0,0017 mg/l   |
|                                  | Intermittent releases  | 0,17 mg/l     |
|                                  | Freshwater sediments   | 0,0782 mg/kg  |
|                                  | Marine water sediments | 0,00782 mg/kg |
|                                  | STP                    | 199,5 mg/l    |
|                                  | Soil                   | 0,005 mg/kg   |

#### 8.2. Exposure controls

Appropriate engineering controls:

Ensure sufficient ventilation in working place. In case of insufficient ventilation use appropriate engineering controls (e.g. local fume hood) which will keep exposure level

below recommended threshold, or use appropriate breathing apparatus.

#### Individual protective measures:

General Obey hygiene rules: do not eat, drink, or smoke at workplace. Wash your hands with soap

recommendation: and water after you finish working with product. Avoid contamination of your clothes.

Contaminated clothes wash before use.

Eye/face protection: Use safety glasses with side shields.

Hand protection: Use chemical resistant gloves standard when working with the product. It is advised to

use butyl or nitrile rubber gloves.

Skin and body

protection: Use protective clothes.

Respiratory At concentrations causing irritation use mask, filter type: A - against organic gases and

protection: vapours.

Advice on personal protection is applicable for high exposure levels. Select proper Remarks:

personal protection based on a risk assessment of the actual situation. Personal

protective equipment must meet requirements of directive 89/686/CE.

#### **Environmental exposure controls:**

Do not allow to contaminate soil, sewage and surface/ ground water. If the product contaminates waterways and drains, alert the relevant authorities.











#### Section 9: Physical and chemical properities

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

Appearance:

Coulor: Component A – light grey, Component B – black

Odour: Characteristic, ester-like

Odour threshold: Not determined

pH: R-KER R-KER-W R-KER-S

> Component A: 5 Component A: 6-7 Component A: 6-7

Component B: 4 Component B: 4 Component B: 4

Melting point / freezing point: Not applicable

Initial boiling point and boiling range: component B - dibenzoyl peroxide: 197°C

Flash point: Component A: 107,5°C (PN-EN ISO 3679:2007)

Evaporation rate: Not determined Flammability (solid, gas): Not applicable

Upper/lower flammability or explosive limits: Component B: UEL = 53,0% by vol.; LEL: 3,2% by vol.

Vapour pressure: Not determined

Component A:  $1,65 \pm 0,3 \text{ g/cm}^3$ , Relative density:

Component B:  $1,25 \pm 0,3 \text{ g/cm}^3$  (PN-EN 542:2005)

Solubility: Insoluble in water, partly soluble in acetone and isopropyl

alcohol

Not determined Partition coefficient n-octanol/water:

Auto-ignition temperature: Not determined

Decomposition temperature: Component A: no data

Component B: SADT = 50°C

Dynamic viscosity (23°C; 100 [s<sup>-1</sup>]): R-KFR:

Component A:  $5,5 \pm 2,0$  [Pa·s]

Component B: 3,6 ± 2,0 [Pa·s]. (EN ISO 3219:2000)

R-KER-W

Component A:  $6.5 \pm 2.0$  [Pa·s]

Component B: 3,6 ± 2,0 [Pa·s]. (EN ISO 3219:2000)

R-KER-S

Component A:  $4.0 \pm 2.0$  [Pa·s]

Component B: 3,6 ± 2,0 [Pa·s]. (EN ISO 3219:2000)

Explosive properties: Not determined

Oxidizing properties: Component A: not applicable

Component B: oxidizing properties

9.2. Other information No additional data

# Section 10: Stability and reactivity

# 10.1. Reactivity

No specific data available

# 10.2. Chemical stability











Product is stable under normal storage conditions (temp. 5 - 25°C). In case of change of apparent consistency or presence of significant air amounts in components, it is advised to interrupt work with product and consult producer.

#### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored under normal conditions of use.

#### 10.4. Conditions to avoid

To avoid thermal degradation of product do not allow to overheat it over the temperature of recommended storage. Protect from sunlight. Overheating of B component over SADT temperature (Self Accelerating Decomposition Temperature, see section 9.1) can cause spontaneous decomposition of the substances in the packaging during transport.

#### 10.5. Incompatible materials

No specific data

#### 10.6. Hazardous decomposition products

Unidentified hydrocarbons, carbon oxides.

# **Section 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not meet

| Ingredient name                                   | Route of exposure         | Species | Result       |
|---|---------------------------|---------|--------------|
| Mathaerulia asid managetar with propage 1.2 dial  | LD <sub>50</sub> (oral)   | rat     | >=2000 mg/kg |
| Methacrylic acid, monoester with propane-1,2-diol | LD <sub>50</sub> (dermal) | rabbit  | > 5000 mg/kg |
| Ethylana dimathaandata                            | LD <sub>50</sub> (oral)   | rat     | 8700 mg/kg   |
| Ethylene dimethacrylate                           | LD <sub>50</sub> (dermal) | rat     | >2000 mg/kg  |
| Dibenzoyl peroxide                                | LD <sub>50</sub> (oral)   | rat     | >5000 mg/kg  |
| 2,2'-[(4-methylphenyl)imino]bisethanol            | LD <sub>50</sub> (oral)   | rat     | 300 mg/kg    |
| 1,1'-(p-tolylimino)dipropan-2-ol                  | LD <sub>50</sub> (oral)   | rat     | 27,5 mg/kg   |
| Ethydono obyed                                    | LD <sub>50</sub> (oral)   | rat     | 7712 mg/kg   |
| Ethylene glycol                                   | LD <sub>50</sub> (dermal) | mouse   | >3500 mg/kg  |
| 4 tart hutulcatochal                              | LD <sub>50</sub> (oral)   | rat     | 815 mg/kg    |
| 4-tert-butylcatechol                              | LD <sub>50</sub> (dermal) | rat     | 1331 mg/kg   |

Irritation / Corrosivity Product causes serious eye irritation (based on available date for ingredients the

product)

**Sensitisation** Product causes skin sensitisation (based on available date for ingredients the product)

| Ingredient name      | Test | Species | Results | Effects      |
|----------------------|------|---------|---------|--------------|
| Dibenzoyl peroxide   | LLNA | mouse   | SI > 3  | Skin Sens. 1 |
| 4-tert-butylcatechol | LLNA | mouse   | SI > 3  | Skin Sens. 1 |

Germ cell mutagenicity Based on available data, product does not meet classification criteria. Based on available data, product does not meet classification criteria. Carcinogenicity Reproductive toxicity Based on available data, product does not meet classification criteria. Single exposure Based on available data, product does not meet classification criteria. Repeated dose toxicity Based on available data, product does not meet classification criteria.











Aspiration hazard Based on available data, product does not meet classification criteria.

# <u>Information on likely routes of exposure:</u>

Inhalation Irritating to respiratory system

Skin exposure May cause sensitization

Irritating to eyes Eye exopsure

Ingestion Irritates mouth, throat and stomach

## Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation: Vapours released during curing process may cause respiratory tract irritation, coughing,

nausea and dizziness. Exposure to decomposition products may cause a health hazard

Serious effects may be delayed following exposure.

Skin exposure: Irritation and redness. May cause sensitization by skin contact. Skin reaction may be

delayed in time.

Eye exposure: pain, lacrimation, irritation and redness

Ingestion: No specific data

# **Section 12: Ecological information**

#### 12.1. Toxicity

| Ingredient name                  | Dose / time of exposure /               | Species                        | Results     |
|----------------------------------|---|--------------------------------|-------------|
|                                  | method                                  |                                |             |
| Methacrylic acid, monoester with | LC <sub>50</sub> /48h / DIN 38412       | Leuciscus idus melanotus       | 493 mg/L    |
| •                                | EC <sub>50</sub> /48h/ OECD 202         | Daphnia magna                  | >143 mg/l   |
| propane-1,2-diol                 | EC <sub>50</sub> /72h / OECD 201        | Pseudokirchnerella subcapitata | >97,2 mg/l  |
|                                  | LC <sub>50</sub> / 96h / OECD 203       | Danio rerio                    | 15,95 mg/l  |
|                                  | EC <sub>50</sub> / 48h / OECD 202       | Daphnia magna                  | 44,9 mg/l   |
| Ethylene dimethacrylate          | EC <sub>50</sub> / 21d / OECD 211       | Daphnia magna                  | >5,05 mg/l  |
|                                  | EC <sub>50</sub> (growth rate)/ 96h /   | Pseudokirchnerella subcapitata | 19 mg/l     |
|                                  | OECD 201                                |                                |             |
|                                  | LC <sub>50</sub> / 96h / OECD 203       | Oncorhynchus mykiss            | 0,0602 mg/L |
| Dibonocul noncuido               | EC <sub>50</sub> / 48h / OECD 202       | Daphnia magna                  | 0,110 mg/L  |
| Dibenzoyl peroxide               | EC <sub>50</sub> (growth rate) / 72h /  | Pseudokirchnerella subcapitata | 0,0711 mg/L |
|                                  | OECD 201                                |                                |             |
|                                  | LC <sub>50</sub> / 96h / F.1.1 of UBA   | Danio rerio                    | 17 mg/L     |
| 1 1 /n talulimin aldinganan 2 al | EC <sub>50</sub> / 48h / OECD 202       | Daphnia manga                  | 28,8 mg/L   |
| 1,1'-(p-tolylimino)dipropan-2-ol | EC <sub>50</sub> (growth rate) / 72h /  | Desmodesmus subspicatus        | 245 mg/L    |
|                                  | OECD 201                                |                                |             |
| Ethylone alveel                  | LC <sub>50</sub> /96h / bd              | Pimephales promelas            | 72860 mg/L  |
| Ethylene glycol                  | EC <sub>50</sub> / 48h / OECD 202       | Daphnia magna                  | >=100 mg/L  |
| 2,2'-[(4-                        | EC <sub>50</sub> /17h                   | Activated sludge               | 4800 mg/L   |
| methylphenyl)imino]bisethanol    | EC <sub>50</sub> /48h                   | Daphnia magna (rozwielitka)    | 94,4 mg/L   |
|                                  | LC <sub>50</sub> /96h / OECD 203        | Danio rerio (fish)             | 0,12 mg/L   |
|                                  | EC5 <sub>0</sub> /48h / OECD 202        | Daphnia manga                  | 0,48 mg/L   |
| 4 tart butulaataabal             | EC <sub>50</sub> (growth rate ) / 72h / | Pseudokirchnerella subcapitata | 10,17 mg/L  |
| 4-tert-butylcatechol             | OECD 201                                | Activated sludge of            |             |
|                                  | EC <sub>50</sub> / 3h /OECD 209         | predominantly domestic         | 16 mg/L     |
|                                  |   | sewage                         |             |

# 12.2. Persistence and degradability











Degr. 68% after 28 days. Readily biodegradable (OECD 301 D) Dibenzoyl peroxide

Methacrylic acid, monoester with

propane-1,2-diol

Degr. 81% after 28 days. Readily biodegradable (OECD 301C)

Degr. 69% after 28 days. Readily biodegradable (OECD 301F) Ethylene dimethacrylate

1,1'-(p-tolylimino)dipropan-2-ol Degr. 39,1% after 28 days. Readily biodegradable (OECD 301B)

Degr 90-100% after 10 days (parameter DOC). Readily biodegradable Ethylene glycol

(OECD 301A)

#### 12.3. Bioaccumulative potential

Methacrylic acid, monoester with

BCF =3,2

propane-1,2-diol Ethylene dimethacrylate

BCF = 21,9

2,2'-[(4-methylphenyl)imino]bisethanol

 $log K_{ow} = 1,09$ . Low ability to bioaccumulation

Dibenzoyl peroxide

 $log K_{OW} = 3.2$ 

# 12.4. Mobility in soil

Dibenzoyl peroxide

 $log K_{OC} = 3.8 (OECD 121)$ 

Methacrylic acid, monoester with

propane-1,2-diol

Koc = 80. Low mobility in soil

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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### 12.6. Other adverse effects

No reports on other adverse effects

#### **Section 13: Disposal considerations**

# 13.1. Waste treatment methods

Product: Minimum waste quantities. Must not be disposed together with household garbage. Do

> not allow product to reach sewage system, ground water and water course. Uncured product dispose of as a chemical waste in licensed facility, in accordance with local regulations of environmental protection and binding legislation on recycling. It is recommended to incinerate wastes arose during product usage in a proper incineration oven. Small quantities of both components may be reacted together, allowed to cure

and dispose of as a solid waste.

Packaging: Used product packaging (cartridge) may be delivered to plastic waste recycling plant.

Contaminated package must be disposed like wastes arose during product usage.

European Waste Code: 08 04 09\* – Waste adhesives and sealants containing organic solvents or other

dangerous substances. 16 09 03\* – Peroxides

Legal basis: Council Directive 2008/98/EC on waste and European Parliament and Council Directive 94/62/EC on packaging and packaging waste. Regulation (EC) No 1013/2006 of 14 June 2006 on shipments of waste.

## **Section 14: Transport information**

|                                  | Land transport ADR /RID | Maritime transport IMDG | Air transport IATA |
|----------------------------------|-------------------------|-------------------------|--------------------|
| 14.1. UN number                  | 3316                    | 3316                    | 3316               |
| 14.2. UN proper shipping name    | Chemical kit            | Chemical kit            | Chemical kit       |
|                                  |                         | (dibenzoyl peroxide)    |                    |
| 14.3. Transport hazard class(es) | 9                       | 9                       | 9                  |











| In a land transport applies the nomenclature in a country origin language and   |
|---|
| English, French or German version. In case of a maritime transport applies the  |
| English terminology (the most convenient). In an air transport applies only the |
| English language.   |

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| 14.4. Packing group  | III   | III   | III  |
|--|---|---|--|
| Label number:  | 9   | 9   | 9 Miscellaneous  |
|  |   |   | WICH AND IN THE STATE OF THE ST |
| Packaging instruction:   | P901  | P901  | Passenger and cargo aircraft: -<br>Ltd Qty (Pkg Inst.: Y960; Max<br>Net Qty/Pkg: 1kg); -Pkg Inst.:<br>960; Max Net Qty/Pkg: 10kg<br>Cargo aircraft only: -Pkg Inst.:<br>960; Max Net Qty/Pkg: 10kg   |
| Limited quantities (LQ):   | Og  | Og Og   | 1kg<br>Y   |
|  | exceed the quantity lim in Column 7a of the D   | n inner packagings which do not<br>dividual substances as specified<br>be transported in accordance<br>ss 5.2. has LQ = 500g per inner  |  |
| Excepted quantities:   | E 0 Note: Based on special provision 340 excepted quantities which do not exceed the quantity limits for excepted quantities applicable to UN 1866 may be transported in accordance with regulations of E 2 code. | E 0 Note: Based on special provision 340 excepted quantities which do not exceed the quantity limits for excepted quantities applicable to UN 1866 may be transported in accordance with regulations of E 2 code. | E 0 Note: Based on special provision 340 excepted quantities which do not exceed the quantity limits for excepted quantities applicable to UN 1866 may be transported in accordance with regulations of E 2 code.  |
| Transport category:  | 3 3 (transport multimod   |   | Not applicable   |
| Tunnel restriction code:   | E E (transport multimodal only)   |   | Not applicable   |
| Special provisions:  | 251, 340  | 251, 340  | A 44, A 163  |
| Storage and segregation:   | Not applicable  | Category A  | Not applicable   |
| EmS:   | Not applicable F-A, S-P   |   | Not applicable   |
| ERG:   | Not applicable Not applicable   |   | 9L   |
| 14.5. Environmental hazards  | Hazardous for<br>environment<br>(dibenzoyl peroxide)  | Hazardous for<br>environment<br>(dibenzoyl peroxide)  | Hazardous for environment (dibenzoyl peroxide)   |
| 14.6. Special precautions for use  | No specific data  | No specific data  | No specific data   |
| 14.7. Transport in bulk according<br>to Annex II of MARPOL 73/78<br>and the IBC Code | Not applicable  | Not applicable  | Not applicable   |







# **Section 15: Regulatory information**

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Regulation (EC) No 1272/2008 of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending regulation (EC) No 1907/2006 (text with EEA relevance).

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) (text with EEA relevance).

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste. Commission Regulation (EC) No. 790/2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

Council Directive 89/686/EEC of 21 December 1989 on the approximation of the laws of the Member States relating to personal protective equipment (and its amendments).

#### 15.2. Chemical safety assessment

Not applicable

# **Section 16: Other information**

| Full text of H-statements: | H241   | Heating may cause a fire or explosion  |
|----------------------------|--------|--|
|                            | H242   | Heating may cause a fire   |
|                            | H300   | Fatal if swallowed   |
|                            | H301   | Toxic if swallowed   |
|                            | H302   | Harmful if swallowed   |
|                            | H312   | Harmful in contact with skin   |
|                            | H314   | Causes severe skin burns and eye damage  |
|                            | H317   | May cause an allergic skin reaction  |
|                            | H315   | Causes skin irritation   |
|                            | H318   | Causes serious eye damage  |
|                            | H319   | Causes serious eye irritation  |
|                            | H335   | May cause respiratory irritation   |
|                            | H360D  | May damage the unborn child  |
|                            | H373   | May cause damage to organs through prolonged or repeated exposure                        |
|                            | H400   | Very toxic to aquatic life   |
|                            | H410   | Very toxic to aquatic life with long lasting effects                                     |
|                            | H412   | Harmful to aquatic life with long lasting effects  |
|                            | EUH208 | Contains HPMA, 4-TBC, ethylene dimethacrylate and BPO. May produce an allergic reaction. |

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Hazard class: Acute Tox. 3 Acute toxicity category 3

> Acute Tox. 2 Acute toxicity category 2 Acute Tox. 4 Acute toxicity category 4 Eye Dam. 1 Serious eye damage category 1 Eye Irrit. 2 Eye irritation category 2

Skin Corr. 1B Skin corrosive category 1B Skin Sens. 1 Skin sensitization category 1

STOT SE 3 Specific target organ toxicity - Single exposure - category 3

Aquatic Chronic 3 Aquatic Chronic category 3 Aquatic Acute 1 Aquatic acute category 1 Organic peroxide category B Org. Perox. B Org. Perox. E Organic peroxide category E

STOT RE 2 Specific target organ toxicity - Repetitive exposure - category

#### Acronyms and abbreviations

Derived no-effect level DNFI

**Predicted No Effect Concentration PNEC** 

PBT Persistent, bioaccumulative and toxicity substances vPvB Very persistent and very bioaccumulative substances

SADT Self-accelerating decomposition temperature

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| Classification according to Regulation (EC) No 1272/2008 | Classification procedure |
|--|--------------------------|
| Eye Irrit. 2, H319                                       | Calculation method       |
| Aquatic Chronic 3, H412                                  | Calculation method       |
| Acute Tox. 4, H302                                       | Calculation method       |
| Skin Sens. 1, H317                                       | Calculation method       |
| STOT SE 3, H335  | Calculation method       |
| Aquatic Acute 1, H400                                    | Calculation method       |
| Org. Perox. E, H242                                      | On basis of test data    |

Alterations compared

to the previous

version

Training advice:

Sections and subsections where changes have been made to the previous version of the

safety data sheet: 1,2,3.

People using the product professionally, should be trained in handling the product, safety

and hygiene. Drivers should be trained and obtain the appropriate certificate in

accordance with the ADR requirements.

The information contained in the Safety Data Sheet is based on current state of knowledge and applies to product with its identified use. The information is intended to aid the user in controlling the handling risks and not to guarantee product quality. If conditions of product use are not under manufacturer control, responsibility for safe use falls to the user. Employer is obliged to inform all employees working with the product, about possible hazards and personal protection specified in Safety Data Sheet.



