

## 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 Commission 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 rinsing.  
 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 (% wt.)	Classification
			(EC) 1272/2008 [CLP]
<b>Component A</b>			
CAS: 27813-02-1 WE: 248-666-3 Reg. nr.: 01-2119490226-37	Methacrylic acid, monoester with propane-1,2-diol (HPMA)	< 14,5	Eye Irrit. 2, H319; Skin Sens. 1, H317
CAS: 97-90-5 WE: 202-617-2 Reg. nr.: 01-2119965172-38	Ethylene dimethacrylate	< 14,5	Skin Sens. 1, H317; STOT SE 3, H335 (C >=10%)
CAS: 3077-12-1 WE: 221-359-1 Reg. nr.: -	2,2'-[[4-methylphenyl]imino]-bisethanol	< 1,6	Acute Tox. 3, H301, Eye Dam. 1, H318
CAS: 38668-48-3 WE: 254-075-1 Reg. nr.: -	1,1'-(p-tolylimino)dipropan-2-ol	< 1,0	Acute Tox. 2, H300; Eye Irrit. 2, H319; Aquatic Chronic 3, H412
CAS: 398475-96-2 Reg. nr.: -	1,2-Ethanediamine, polymer with aziridine	<0,6	Aquatic Chronic 2, H411; Eye Irrit, 2; H319
CAS: 98-29-3 Reg. nr.: 01-2119548368-28	2-methoxy-1methylethyl acetate	<0,3	Flam. Liq. 3, H226
CAS: 27813-02-1 WE: 248-666-3 Reg. nr.: 01-2119490226-37	4-tert-butylcatechol (4-TBC)	<0,16	Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

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

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

## Section 4: First aid measures

### 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 contact: 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

In 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 its 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

Ingredient name	Long-term exposure		Short-term exposure		Comments
	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
Dibenzoyl peroxide					
Austria/Denmark	5	-	10	-	Inhalable aerosol
Belgium/France/USA (NIOSH)/United Kingdom	5	-	-	-	-
Germany/Hungary/Switzerland	5	-	5	-	Inhalable aerosol
Ethylene glycol (vapour)					
Austria/Denmark/Germany/Switzerland	26	10	52	20	-
France/Ireland/United Kingdom	52	20	104	40	-
Sweden	25	10	50	20	-
Ethylene glycol (particulate)					
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
Dibenzoyl peroxide	Oral	1,65 mg/kg	Consumers	Systematic, long-term
	Dermal	3,3 mg/kg	Consumers	Systematic, long-term
	Inhalation	6,6 mg/kg	Workers	Systematic, long-term
		2,9 mg/m <sup>3</sup>	Consumers	Systematic, long-term
		11,75 mg/m <sup>3</sup>	Workers	Systematic, long-term
Methacrylic acid, monoester with propane-1,2-diol	Inhalation	14,7 mg/m <sup>3</sup>	Workers	Systematic, long-term
	Dermal	8,8 mg/m <sup>3</sup>	Consumers	Systematic, long-term
		4,2 mg/kg	Workers	Systematic, long-term
	Oral	2,5 mg/kg	Consumers	Systematic, long-term
Ethylene dimethacrylate	Inhalation	2,45 mg/m <sup>3</sup>	Workers	Systematic, long-term
		1,47 mg/m <sup>3</sup>	Consumers	Systematic, long-term
	Dermal	1,3 mg/kg	Workers	Systematic, long-term
		100 mg/kg	Consumers	Systematic, long-term
1,1'-(p-tolylimino)dipropan-2-ol	Dermal	2 mg/m <sup>3</sup>	Workers	Systematic, long-term
		0,4 mg/m <sup>3</sup>	Consumers	Systematic, long-term
	Inhalation	0,6 mg/kg	Workers	Systematic, long-term
		0,3 mg/kg	Consumers	Systematic, long-term
Ethylene glycol	Dermal	53 mg/kg	Consumers	Systematic, long-term
		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 µg/l

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

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

At concentrations causing irritation use mask, filter type: A – against organic gases and vapours.

Remarks:

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

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

Appearance:	paste
Colour:	Component A – light grey, Component B – black
Odour:	Characteristic, ester-like
Odour threshold:	Not determined
pH:	Not determined
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
Relative density:	Component A: 1,65 ± 0,05 g/cm <sup>3</sup> , Component B: 1,21 ± 0,05 g/cm <sup>3</sup> (PN-EN 542:2005)
Solubility:	Insoluble in water, partly soluble in acetone and isopropyl alcohol
Partition coefficient n-octanol/water:	Not determined
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> ]):	Component A: 10,0 ± 2,0 [Pa·s] Component B: 8,5 ± 1,0 [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 met

Ingredient name	Route of exposure	Species	Result
Methacrylic acid, monoester with propane-1,2-diol	LD <sub>50</sub> (oral)	rat	≥2000 mg/kg
	LD <sub>50</sub> (dermal)	rabbit	> 5000 mg/kg
Ethylene dimethacrylate	LD <sub>50</sub> (oral)	rat	8700 mg/kg
	LD <sub>50</sub> (dermal)		>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
Ethylene glycol	LD <sub>50</sub> (oral)	rat	7712 mg/kg
	LD <sub>50</sub> (dermal)	mouse	>3500 mg/kg
4-tert-butylcatechol	LD <sub>50</sub> (oral)	rat	815 mg/kg
	LD <sub>50</sub> (dermal)		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.

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

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.

#### Information on likely routes of exposure:

Inhalation	Irritating to respiratory system
Skin exposure	May cause sensitization
Eye exposure	Irritating to eyes
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 / method	Species	Results
Methacrylic acid, monoester with propane-1,2-diol	LC <sub>50</sub> /48h / DIN 38412 EC <sub>50</sub> /48h/ OECD 202 EC <sub>50</sub> /72h / OECD 201	<i>Leuciscus idus melanotus</i> <i>Daphnia magna</i> <i>Pseudokirchnerella subcapitata</i>	493 mg/L >143 mg/l >97,2 mg/l
Ethylene dimethacrylate	LC <sub>50</sub> / 96h / OECD 203 EC <sub>50</sub> / 48h / OECD 202 EC <sub>50</sub> / 21d / OECD 211 EC <sub>50</sub> (growth rate)/ 96h / OECD 201	<i>Danio rerio</i> <i>Daphnia magna</i> <i>Daphnia magna</i> <i>Pseudokirchnerella subcapitata</i>	15,95 mg/l 44,9 mg/l >5,05 mg/l 19 mg/l
Dibenzoyl peroxide	LC <sub>50</sub> / 96h / OECD 203 EC <sub>50</sub> / 48h / OECD 202 EC <sub>50</sub> (growth rate) / 72h / OECD 201	<i>Oncorhynchus mykiss</i> <i>Daphnia magna</i> <i>Pseudokirchnerella subcapitata</i>	0,0602 mg/L 0,110 mg/L 0,0711 mg/L
1,1'-(p-tolylimino)dipropan-2-ol	LC <sub>50</sub> / 96h / F.1.1 of UBA EC <sub>50</sub> / 48h / OECD 202 EC <sub>50</sub> (growth rate) / 72h / OECD 201	<i>Danio rerio</i> <i>Daphnia magna</i> <i>Desmodesmus subspicatus</i>	17 mg/L 28,8 mg/L 245 mg/L
Ethylene glycol	LC <sub>50</sub> /96h / bd EC <sub>50</sub> / 48h / OECD 202	<i>Pimephales promelas</i> <i>Daphnia magna</i>	72860 mg/L ≥100 mg/L
2,2'-[(4-methylphenyl)imino]bisethanol	EC <sub>50</sub> /17h EC <sub>50</sub> /48h	Activated sludge <i>Daphnia magna</i> (rozwielitka)	4800 mg/L 94,4 mg/L
4-tert-butylcatechol	LC <sub>50</sub> /96h / OECD 203 EC <sub>50</sub> /48h / OECD 202 EC <sub>50</sub> (growth rate) / 72h / OECD 201 EC <sub>50</sub> / 3h / OECD 209	<i>Danio rerio</i> (fish) <i>Daphnia magna</i> <i>Pseudokirchnerella subcapitata</i> Activated sludge of predominantly domestic sewage	0,12 mg/L 0,48 mg/L 10,17 mg/L 16 mg/L

**12.2. Persistence and degradability**

Dibenzoyl peroxide	Degr. 68% after 28 days. Readily biodegradable (OECD 301 D)
Methacrylic acid, monoester with propane-1,2-diol	Degr. 81% after 28 days. Readily biodegradable (OECD 301C)
Ethylene dimethacrylate	Degr. 69% after 28 days. Readily biodegradable (OECD 301F)
1,1'-(p-tolylimino)dipropan-2-ol	Degr. 39,1% after 28 days. Readily biodegradable (OECD 301B)
Ethylene glycol	Degr 90-100% after 10 days (parameter DOC). Readily biodegradable (OECD 301A)

### 12.3. Bioaccumulative potential

Methacrylic acid, monoester with propane-1,2-diol	BCF = 3,2
Ethylene dimethacrylate	BCF = 21,9
2,2'-[[4-methylphenyl]imino]bisethanol	log K <sub>ow</sub> = 1,09. Low ability to bioaccumulation
Dibenzoyl peroxide	log K <sub>ow</sub> = 3,2

### 12.4. Mobility in soil

Dibenzoyl peroxide	log K <sub>oc</sub> = 3,8 (OECD 121)
Methacrylic acid, monoester with propane-1,2-diol	K <sub>oc</sub> = 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
<b>14.1. UN number</b>	3316	3316	3316
<b>14.2. UN proper shipping name</b>	Chemical kit	Chemical kit (dibenzoyl peroxide)	Chemical kit
<b>14.3. Transport hazard class(es)</b>	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.			

<b>14.4. Packing group</b>	III	III	III
Label number:	9 	9 	9 Miscellaneous 
Packaging instruction:	P901	P901	<u>Passenger and cargo aircraft:</u> - Ltd Qty (Pkg Inst.: Y960; Max Net Qty/Pkg: 1kg); -Pkg Inst.: 960; Max Net Qty/Pkg: 10kg <u>Cargo aircraft only:</u> -Pkg Inst.: 960; Max Net Qty/Pkg: 10kg
Limited quantities (LQ):	0g 	0g 	1kg 
	<b>Note:</b> Chemical kit containing dangerous goods in inner packagings which do not exceed the quantity limits for LQ applicable to individual substances as specified in Column 7a of the Dangerous Goods List may be transported in accordance with Chapter 3.4 (component B – UN 3106, class 5.2. has LQ = 500g per inner packaging).		
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 multimodal only)	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
<b>14.5. Environmental hazards</b>	Hazardous for environment (dibenzoyl peroxide)	Hazardous for environment (dibenzoyl peroxide)	Hazardous for environment (dibenzoyl peroxide)
<b>14.6. Special precautions for use</b>	No specific data	No specific data	No specific data
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	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.

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
	Org. Perox. B	Organic peroxide category B
	Org. Perox. E	Organic peroxide category E
	STOT RE 2	Specific target organ toxicity – Repetitive exposure – category 2

Acronyms and abbreviations

DNEL	Derived no-effect level
PNEC	Predicted No Effect Concentration
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

Sections and subsections where changes have been made to the previous version of the safety data sheet: 1,2,3.

Training advice:

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.

## 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-KEM-II, R-KEM-II-W, R-KEM-II-S; R-CFS+RM50, R-CFS+RM50-W, R-CFS+RM50-S

#### 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 661 970 354 (Monday-Friday: 8.00-16.00, English)

### Section 2: Hazards identification

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

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

Org. Perox. E	H242	Heating may cause a fire
Flam. Liq. 3	H226	Flammable liquid and vapour
Skin Sens. 1	H317	May cause an allergic skin reaction
Skin Irrit. 2	H315	Causes skin 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
H226	Flammable liquid and vapour
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
EUH208	Contains dibenzoyl peroxide. 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 P305+P351+P338  P333+P313 P337+P313	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.
Storage:	-	
Disposal:	P501	Dispose of contents/container to local/regional/national/international regulations.
<u>Dangerous substances:</u>	Dibenzoyl peroxide	

**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 (% wt.)	Classification
			(EC) 1272/2008 [CLP]
<b>Component A</b>			
CAS: 25013-15-4 Reg. nr.: 01-2119622074-50-0000	Vinyl toluene	12 - 20	Acute Tox. 4, H332; Asp. Tox. 1, H304; Eye Irrit. 2, H319; Flam. Liq. 3, H226; Skin Irrit. 2, H315
CAS: 398475-96-2 Reg. nr.: -	1,2-Ethanediamine, polymer with aziridine	0,5 - 1	Aquatic Chronic 2, H411; Eye Irrit. 2; H319
CAS: 70657-70-4 WE: 274-724-2	2-methoxy-1methylethyl acetate	<0,5	Flam. Liq. 3, H226
<b>Component B</b>			
CAS: 94-36-0 Reg. nr.: 01-2119511472-50-XXXX	Dibenzoyl peroxide	15 - 20	Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Acute 1, H400
CAS: 107-21-1 Reg. nr.: 01-2119456816-28-XXXX	Ethylene glycol	< 10	Acute Tox. 4, H302; STOT RE 2, H373

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

## Section 4: First aid measures

### 4.1. Description of first aid measures

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 contact:	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

In case of fire, 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 quantities of 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 its 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

Ingredient name	Long-term exposure		Short-term exposure		Comments
	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
<u>Ethylene glycol (particulate)</u>					
Belgium/Latvia	52	20	104	40	-
Germany/Switzerland	26	10	52	20	-
Hungary	10	-	104	-	-
Sweden	25	10	50	20	-
United Kingdom	10	-	-	-	-
<u>Ethylene glycol (vapour)</u>					
Austria/Denmark/Germany/Switzerland	26	10	52	20	-
France/Ireland/United Kingdom	52	20	104	40	-
Sweden	25	10	50	20	-
<u>Dibenzoyl peroxide:</u>					
Austria/Denmark	5	-	10	-	Inhalable aerosol
Belgium/France/USA (NIOSH)/United Kingdom	5	-	-	-	-
Germany/Hungary/Switzerland	5	-	5	-	Inhalable aerosol
<u>Vinyl toluene:</u>					
Austria	480	100	480	100	-
Belgium	246	50	490	100	-
Denmark	120	25	240	50	-
France	240	50	-	-	-
Germany	490	100	980	200	-
Ireland	242	50	483	100	-
Latvia	50	-	-	-	-
Spain	246	50	492	100	-
Sweden	50	10	150	30	-
Switzerland	240	50	480	100	-

DN(M)ELs



Ingredient name	Route of exposure	Value	Group	Effect
Dibenzoyl peroxide	Oral	1,65 mg/kg	Consumers	Systematic, long-term
	Dermal	3,3 mg/kg	Consumers	Systematic, long-term
		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
Ethylene glycol	Dermal	53 mg/kg	Consumers	Systematic, long-term
		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
	Vinyl toluene	Inhalation	37 mg/m <sup>3</sup>	Workers
37 mg/m <sup>3</sup>			Workers	Local, long-term

### PNECs

	Environmental protection target	Value
Dibenzoyl peroxide	Fresh water	0,602 µg/l
	Marine water	0,0602 µg/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
Ethylene glycol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Intermittent releases	10 mg/l
	Freshwater sediments	37 mg/kg
	Marine water sediments	3,7 mg/kg
	STP	199,5 mg/l
	Soil	1,53 mg/kg
Vinyl toluene	Fresh water	0,0498 mg/l
	Marine water	0,002 mg/l
	Intermittent releases	0,013 mg/l
	Freshwater sediments	0,684 mg/kg
	Marine water sediments	0,0684 mg/kg
	STP	1 mg/l
	Soil	0,133 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 recommendation:	Obey hygiene rules: do not eat, drink, or smoke at workplace. Wash your hands with soap 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 protection:	At concentrations causing irritation use mask, filter type: A – against organic gases and vapours.
Remarks:	Advice on personal protection is applicable for high exposure levels. Select proper 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 properties

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

Appearance:	paste
Color:	Component A – yellow, Component B – black
Odour:	Characteristic, ester-like
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not applicable
Initial boiling point and boiling range:	Component B: dibenzoyl peroxide: 197°C
Flash point:	Component A: 49°C (PN-EN ISO 3679:2007)
Evaporation rate:	Not determined
Flammability (solid, gas):	Flammable
Upper/lower flammability or explosive limits:	Component A: not determined Component B: UEL = 53,0 % vol.; LEL = 3,2% vol.
Vapour pressure:	Not applicable (product is in solid state)
Relative density:	Component A: 1,52 ± 0,05 [g/cm <sup>3</sup> ] Component B: 1,21 ± 0,05 [g/cm <sup>3</sup> ](PN-EN 542:2005)
Solubility:	Insoluble in water, partly soluble in acetone and isopropyl alcohol
Partition coefficient n-octanol/water:	Not determined
Auto-ignition temperature:	Product is not self-igniting
Decomposition temperature:	Component A: no data Component B: SADT = 50°C

Dynamic viscosity (23°C; 100 [s <sup>-1</sup> ]):	Component A: 12,5 ± 1,5 [Pa·s] Component B: 8,5 ± 1,0 [Pa·s] (EN ISO 3219:2000)
Dynamic viscosity (40°C; 100 [s <sup>-1</sup> ]):	Component A: 5,1 ± 1,5 [Pa·s]
Kinematic viscosity (40°C; 100 [s <sup>-1</sup> ]):	Component A: 3100 [mm <sup>2</sup> /s]
Explosive properties:	Product is not explosive
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
Vinyl toulene	LD <sub>50</sub> (oral)	rat	>5000 mg/kg
	LD <sub>50</sub> (dermal)	rabbit	>5 mg/kg
Ethylene glycol	LD <sub>50</sub> (oral)	rat	7712 mg/kg
	LD <sub>50</sub> (dermal)	mouse	>3500 mg/kg
Dibenzoyl peroxide	LD <sub>50</sub> (oral)	rat	>5000 mg/kg

### Irritation / Corrosivity

Product causes eye and skin irritation (based on available date for ingredients of the product)



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

Ingredient name	Test	Species	Results	Effects
Dibenzoyl peroxide	LLNA	mouse	SI > 3	Skin Sens. 1

**Germ cell mutagenicity** Based on available data, product does not meet classification criteria.

**Carcinogenicity** Based on available data, product does not meet classification criteria.

**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.

**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 / method	Species	Results
Vinyl toluene	LC <sub>50</sub> / 48h / OECD 202	<i>Daphnia magna</i>	1,3 mg/L
	EC <sub>50</sub> (growth rate) / 72h / OECD 201	<i>Pseudokirchnerella subcapitata</i>	2,6 mg/L
Ethylene glycol	LC <sub>50</sub> / 96h / bd	<i>Pimephales promelas</i>	72860 mg/L
	EC <sub>50</sub> / 48h / OECD 202	<i>Daphnia magna</i>	>=100 mg/L
Dibenzoyl peroxide	LC <sub>50</sub> / 96h / OECD 203	<i>Oncorhynchus mykiss</i>	0,0602 mg/L
	EC <sub>50</sub> / 48h / OECD 202	<i>Daphnia magna</i>	0,110 mg/L
	EC <sub>50</sub> (growth rate) / 72h / OECD 201	<i>Pseudokirchnerella subcapitata</i>	0,0711 mg/L

**12.2. Persistence and degradability**

Vinyl toluene	Readily biodegradable
Ethylene glycol	Degr. 90-100% after 10 days (parameter DOC). Readily biodegradable (OECD 301 A)
Dibenzoyl peroxide	Degr. 68% after 28 days. Readily biodegradable (OECD 301 D)

**12.3. Bioaccumulative potential**

Vinyl toluene	BCF = 4,9
Dibenzoyl peroxide	log Kow = 3,2

## 12.4. Mobility in soil

Dibenzoyl peroxide

log K<sub>oc</sub> = 3,8 (OECD 121)

## 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
<b>14.1. UN number</b>	UN 3269	UN 3269	UN 3269
<b>14.2. UN proper shipping name</b>	POLYESTER RESIN KIT	POLYESTER RESIN KIT	POLYESTER RESIN KIT
<b>14.3. Transport hazard class(es)</b>	3	3	3
	In road transport it is required to use PSN in language of country of origin and also in one of the following : English, French and German. In maritime transport it is preferable to use English. In air transport English is obligatory.		
<b>14.4. Packing group</b>	III	III	III
Label number:	3 	3 	3 Flammable Liquids 
Packaging instruction:	P302	P302	<u>Passenger and cargo aircraft:</u> - Ltd Qty (Pkg Inst.: Y960; Max Net Qty/Pkg: 1kg); -Pkg Inst.: 960; Max Net Qty/Pkg: 10kg <u>Cargo aircraft only:</u> -Pkg Inst.: 960; Max Net Qty/Pkg: 10kg
Limited quantities (LQ):	5L 	5L 	1kg 



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 multimodal only)	3 (transport multimodal only)
Tunnel restriction code:	E	3 (transport multimodal only)	3 (transport multimodal only)
Special provisions:	236, 340	236, 340	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	5L
<b>14.5. Environmental hazards</b>	Not applicable	Not applicable	Not applicable
<b>14.6. Special precautions for use</b>	No specific data	No specific data	No specific data
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	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
	H302	Harmful if swallowed
	H304	May be fatal if swallowed and enters airways
	H315	Causes skin irritation
	H317	May cause an allergic skin reaction
	H319	Causes serious eye irritation
	H332	Harmful if inhaled
	H373	May cause damage to organs through prolonged or repeated exposure
	H400	Very toxic to aquatic life
	H412	Harmful to aquatic life with long lasting effects
	EUH208	Contains dibenzoyl peroxide. May produce an allergic reaction

Hazard class:	Acute Tox. 4	Acute toxicity category 4
	Flam. Liq. 3	Flammable Liquid 3
	Eye Irrit. 2	Eye irritation category 2
	Skin Irrit. 2	Skin irritant category 2
	Skin Sens. 1	Skin sensitization category 1
	STOT RE 2	Specific target organ toxicity – Repeated exposure – category 2
	Aquatic Acute 1	Aquatic acute category 1
	Aquatic Chronic 1	Harmful to aquatic life with long lasting effects
	Org. Perox. B	Organic peroxide category B
	Org. Perox. E	Organic peroxide category E

### Acronyms and abbreviations

DNEL	Derived no-effect level
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 Dam. 1, H318
	Skin Sens. 1, H317	Calculation method
	Skin Irrit. 2, H315	Calculation method
	Aquatic Acute 1, H400	Calculation method
	Flam. Liq. 3, H226	On basis of test data
	Org. Perox. E	On basis of test data

Alterations compared to the previous version Sections and subsections where changes have been made to the previous version of the safety data sheet: 2, 3.

Training advice 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.