

Safety Data Sheet

in accordance the Commission Regulation (EU) No 2020/878 of 18 June 2020
amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council
concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

Identification of the substance/mixture and of the company/undertaking**Product identifier**

R-KER-II, R-KER-II – S, R-KER-II – W

Relevant identified uses of substance or mixture and uses advised against

Identified uses: Chemical anchoring system for building industry

Uses advised against: Every way of using not mentioned above or in the point 7.3

Details of the supplier of the safety data sheet

Company name and address:

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

Telephone number: +48 (0) 71 32 60 100, +48 (0) 71 37 26 11

E-mail (competent person): infochem@rawlplug.com

General information**Storage**

Storage temperature: 5-25 °C. Protect the product against solar radiation. Store the product in a well-ventilated place.

Comment

A separate safety data sheet has been prepared for each component. Do not separate any SDS from the title page.

Additional information

The 2-component cartridge contains:

- Component A : vinylester resin, inorganic powdery extenders, liquid rheological additives
- Component B : hardener with benzoyl peroxide.

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

R-KER-II, R-KER-II – S, R-KER-II – W – component A

UFI Code: 4600-Y09E-Y009-4JT7

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

Identified uses: Chemical anchoring system for building industry

Uses advised against: Every way of using not mentioned above or in the point 7.3

1.3. Details of the supplier of the safety data sheet

Company name and address:

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

Telephone number: 730 975 700

E-mail (competent person): infochem@rawlplug.com

1.4 Emergency telephone number

Nationwide emergency phone number (8:00 – 16:00): + 48 71 320 91 00

PL: 112 (emergency call)

Emergency telephone number				
Country	Official advisory body	Address	Emergency number	Remark
Austria	Vergiftungsinformationszentra le (Poisons Information Centre)	Stubenring 6 1010 Wien	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base – Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Bulgaria	Национален токсикологичен информационен център (National Toxicological Information Centre) Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов" (National Clinical Toxicology Centre), Emergency Medical Institute "Pirogov"	21 Tottleben Boulevard 1606 SOFIA	+359 2 9154 409	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Cyprus	Κέντρο Δηλητηριάσεων		1401	Operating hours 24 hours / 24 hours, 7 days a week
Czech Republic	Toxikologickéinformačnístředisko Klinikapracovníholékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 29 Helsinki	+358 9 471 977 +358 9 471 1	
France	Centre Antipoison et de Toxicovigilance de Paris Hôpital Fernand Widal	200 rue du Faubourg Saint-Denis 75475 Paris Cedex 10	+33 1 40 05 48 48	
France	Centre Antipoison et de Toxicovigilance de Marseille Hôpital Sainte Marguerite	270 boulevard de Sainte Marguerite 13274 Marseille Cedex 09	+33 4 91 75 25 25	
Germany	Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik rechts der Isar der Technischen Universität München	Ismaninger Straße 22 81675 München	+49 (0) 89 19240	
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 (0) 30 19240	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai Tájékoztató Szolgálat	Nagyvárad tér 2. 1437 Budapest, Pf. 839 1097 Budapest	+36 80 20 11 99	
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveleni Dipartimento di Tossicologia Clinica, Università Cattolica del Sacro Cuore	Largo Agostino Gemelli 8 168 Roma	+39 06 305 4343	
Latvia	Valsts Toksikoloģijas centrs, Saindešanās un zāļu informācijas centrs	Hipokrāta 2 1038 Riga	+371 67 04 24 73	
Lithuania	Apsinuodijimų informacijos biuras	Birutės g. 56 8110 Vilnius	+370 5 236 20 52 +370 687 53378	
Luxembourg	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base - Reine	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	

	Astrid			
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Netherlands	Nationaal Vergiftigingen Informatie Centrum Universitair Medisch Centrum Utrecht, Het Nationaal Vergiftigingen Informatie Centrum (NVIC) informeert (dieren-) artsen, apothekers en andere professionele hulpverleners over de mogelijke gezondheidseffecten en behandelingsmogelijkheden bij vergiftigingen. Het NVIC is hiervoor dag en nacht bereikbaar, zowel telefonisch als via internet	Huispostnummer B.00.118 PO Box 85500 3508 GA Utrecht	+31 30 274 88 88	Only for the purpose of informing medical personnel in cases of acute intoxications
Norway	Giftinformasjonens Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Poland	National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	
Portugal	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013 Lisboa	+351 808 250 143	
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Serbia	Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40 (24h) +381 11 3672 187	
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Slovenia	Center za kliničnotoksikologijo in farmakologijo Internaklinika, UKCL	Zaloška cesta 7 1525 Ljubljana	+386 41 650 500	
Spain	Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Sevilla	Carretera de San Jerónimo Km 0,4 41080 Sevilla	+34 91 562 04 20	(Toxicological emergencies only). Information in Spanish (24/7)
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	(from abroad: +41 44 251 51 51) non urgent inquiry: +41 44 251 66 66
Switzerland	Tox Info Suisse	Freiestrasse 16 8032 Zürich	145	

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Physical and chemical hazards:

This mixture does not present a physical hazard.

Health hazards

Classification according to Regulation (EC) No 1272/2008

Sensitisation Skin, Hazard Category 1 [Skin Sens. 1]

May cause an allergic skin reaction. (H317)

Specific target organ toxicity — Repeated exposure, Hazard Category 2 [STOT RE 2]

May cause damage to organs through prolonged or repeated exposure [lungs] (H373)

Environmental hazards:

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Pictograms



GHS08



GHS07

Signal word: Warning

Supplemental Hazard Statements on labels

Contains: 2,2'-ethylenedioxydiethyl dimethacrylate; Quartz (SiO₂)

Hazard statement(s)

H373 May cause damage to organs through prolonged or repeated exposure [lungs]

H317 May cause an allergic skin reaction.

Precautionary statement(s)

Prevention:

P264 Wash hands thoroughly after handling.

P260 Do not breathe dust

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P102 Keep out of reach of children

Response:

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

P314. Get medical advice/attention if you feel unwell.

2.3 Other hazards

The substances contained in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. The product does not contain substances included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

Section 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance identifier	Name of the substance	Weight fraction %	Classification in line with The Regulation (EC) No. 1272/2008		
			Signal Word Code(s)	Hazard Class and Category Code(s)	Hazard Statement Code(s)

CAS No: 14808-60-7 CE No: 238-878-4 Index No: REACH No:	Quartz (SiO ₂) [1]	25<x<30	_____	Not Classified	_____
CAS No: 109-16-0 CE No 203-652-6 Index No REACH No: 01-2119969287-21-xxxx	2,2'-ethylenedioxydiethyl dimethacrylate	30<x<35	GHS07 Wng	Skin Sens. 1	H317
CAS No: 471-34-1 CE No: 207-439-9 Index No: REACH No: 01-2119486795-18-xxxx	Calcium carbonat [1]	5<x<10	_____	Not Classified	_____
CAS No: 14808-60-7 CE No: 238-878-4 Index No REACH No:	Quartz (SiO ₂) particulate silica [1]	5<x<10	GHS08 Dgr	STOT RE 1	H372
CAS No: 38668-48-3 CE No: 254-075-1 Index No REACH No: 01-2119980937-17-xxxx	1,1'-(p-tolylimino)dipropan-2-ol	<1.5	GHS07 GHS06 Dg	Aquatic Chronic 3 Acute Tox. 2: Eye Irrit. 2: H319	H412 H300 H319

[1] Substance with national exposure limit in the workplace

Full H phrases are specified in point 16 hereof.

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures general:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact:

Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.

Eye contact:

Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.

Ingestion:

Drink plenty of water. Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

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

Skin contact:

May cause an allergic skin reaction.

Eye contact:

Possible redness, tearing, temporary irritation

Ingestion:

May cause irritation of the mucous membranes of gastrointestinal tract, nausea, vomiting.

Inhalation:

Exposure may cause coughing or wheezing. May cause damage to organs [lung organs] through prolonged or repeated exposure.

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

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, powder, carbon dioxide, water in spray.

Unsuitable extinguishing media:

Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

During combustion harmful gases consisting of carbon oxides may be produced. Do not inhale combustion products, may cause health risk.

5.3. Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Containers may burst if heated due to the rise of pressure. In case of fire cool endangered containers with water fog from safe distance. Do not let extinguishing water to reach drainage system. Collect used extinguishing media.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Take unprotected persons out of the risk area. Avoid direct contact with the mixture. Do not inhale dust. Remove all sources of ignition.

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation. Provide adequate ventilation.

For emergency responders

Ensure that breakdown and its results are only trained personnel. Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Recover mechanically the product. On land, sweep or shovel into suitable containers. Store away from other materials. Dispose of materials or solid residues at an authorized site.

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

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact during pregnancy/while nursing. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid exceeding the given occupational exposure limits (see section 8). For personal protection see section 8. Use only non-sparking tools. Take precautionary measures against static discharge.

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)

Chemical anchoring system for building industry.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Quartz [14808-60-7]			
Limit value - Eight hours		Limit value - Short term	
[ppm]	[mg/m³]	[ppm]	[mg/m³]
Austria	0.05(1)(2)		
Belgium	0.1		
Denmark	0,3 inhalable aerosol 0,1 respirable aerosol	0,6 inhalable aerosol 0,2 respirable aerosol	
Finland	0.05(1)		
France	0,1 respirable aerosol		
Hungary	0,15 respirable aerosol		
Ireland	0,1 (1)		
Norway	0,3 (1) 0,1 (2)		
Poland	0.1(1)		
Spain	0,05 (1)		
Sweden	0,1 (1)		
Switzerland	0,15 respirable aerosol		
The Netherlands	0,075 respirable dust		
Remarks:			
Austria (1) MAK value (2) Respirable fraction			
Finland (1) Respirable fraction			
France Bold type: Restrictive statutory limit values			
Ireland (1) Respirable fraction			
Norway (1) Total dust (2) Respirable fraction			
Poland (1) Respirable fraction			
Spain (1) Respirable fraction			
Sweden(1) Respirable fraction			
Calcium carbonate [471-34-1]			
Limit value - Eight hours		Limit value - Short term	
ppm	mg/m³	ppm	mg/m³
France	10 inhalable aerosol		
Hungary	10 inhalable aerosol		
Ireland	10 (1) 4 (2)		
Latvia	6		
Poland	10		
Switzerland	3 respirable aerosol		
United Kingdom	10 inhalable aerosol 4 respirable aerosol		
Remarks			
Ireland (1) Inhalable fraction (2) Respirable fraction			

Legal basis:

Directive 2014/27/Eu Of The European Parliament And Of The Council of 26 February 2014 amending Council Directives 92/58/EEC, 92/85/EEC, 94/33/EC, 98/24/EC and Directive 2004/37/EC of the European Parliament and of the Council, in order to align them to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

COMMISSION DIRECTIVE 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC. COMMISSION DIRECTIVE 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure

limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC. COMMISSION DIRECTIVE 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

DNEL/PNEC

Benzoyl peroxide [94-36-0]	
DNEL Workers	
long-term, dermal, systemic:	13.3 mg/kg
long term, inhalative, systemic:	39 mg/m ³
long-term, dermal, local:	0.34 mg/cm ²
DNEL Consumer	
long term, oral, local:	2 mg/kg
PNEC	
water (fresh water):	0.0002 mg/L
water (sea water):	0.00002 mg/L
sediment (fresh water):	0.013 mg/kg
sediment (sea water):	0.001 mg/kg
soil: 0.003 mg/kg	
sewage treatment plant:	0.35 mg/L
Ethylene glycol [107-21-1]	
DNEL/DMEL (Employees)	
Systematic, long-term effects: skin	106 mg/kg
Systematic, long-term effects: inhalation	35 mg/cm ³
DNEL/DMEL (Consumers)	
Systematic, long-term effects: inhalation	7 mg/m ³
Systematic, long-term effects: skin	53 mg/kg
PNEC	
PNEC water (fresh water)	10 mg/l
PNEC marine water	1 mg/l
PNEC soil	1.53 mg/kg
Freshwater sediment	20.9 mg/kg
STP (water treatment plants)	199 mg/l

Recommended monitoring procedures

Monitoring procedures should be used for concentrations of hazardous components in the air. Air quality control procedures should be used in the workplace - as long as they are available and reasonable for the job - in accordance with the relevant Polish or European Standards, taking into account the conditions prevailing at the site of exposure and corresponding measurement methodologies adapted to the conditions work. Mode, type and frequency of tests and measurements should meet the requirements of the Regulation of the Minister of Health on 2 February 2011. (Dz. U. 2011 No. 33, item. 166).

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate vapours, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.2.2 Individual protection measures, such as personal protective equipment

Breathing equipment: Not required in case of adequate ventilation. In case of brief exposure or low pollution use respiratory filter device. At concentrations causing irritation use mask with filter. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

<u>Protection of hands:</u>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
<u>Body Protection:</u>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<u>Other skin protection:</u>	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<u>Hygiene at work:</u>	Apply general hygiene at work rules. After work, remove contaminated clothes and wash thoroughly the whole body. Wash your hands and face during breaks. Restrain from drinking and eating or smoking at work.

8.2.3 Environmental exposure controls

Avoid release to the environment, do not enter the sewage system. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colour:	Brown
Odour:	Characteristic
Smell threshold	Information unavailable
Melting/ clotting point	0 °C
Initial boiling point and boiling range:	Information unavailable
Flammability:	Not applicable
Upper/lower flammability or explosive limits:	Information unavailable
Flash point:	Above the SADT value
Auto-ignition temperature:	SADT* = 50°C [Benzoyl Peroxide]
Decomposition temperature:	Information unavailable
pH	Not determined
Dynamic viscosity (23°C; 100 [s-1]):	R-KER-II 5 ± 2 [Pa·s] R-KER-II-S 6 ± 2 [Pa·s] R-KER-II-W 6 ± 2 [Pa·s]
Solubility:	Insoluble in water
Partition coefficient: n-octanol/water:	Information unavailable
Vapour pressure:	Information unavailable
Density and/or relative density	1,4-1,5 g/cm ³
Relative vapour density	Information unavailable
Particle characteristics	Paste

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Oxidizing properties: has oxidizing properties.

9.2.2 Other safety characteristics

Information unavailable.

Section 10: Stability and reactivity

10.1 Reactivity

No reactivity under recommended storage and handling conditions.

10.2 Chemical stability

Product is stable under normal storage conditions (temp. 5 - 250C). In the case of visible changes in the consistency of the product, the presence of significant amounts of air in components it is recommended to cessation work with the product.

10.3 Possibility of hazardous reactions

No further relevant information available.

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.

10.5 Incompatible materials

Strong acids, strong bases, strong oxidants and strong reducing agents

10.6 Hazardous decomposition products

Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds. Reference to other sections: 5.2.

Section 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicity of mixture

ATE MIX oral (mg / kg):>2000 The mixture does not contain substances classified in this hazard class.

ATE MIX dermal (mg/kg):)>2000 The mixture does not contain substances classified in this hazard class.

ATE MIX inhalation (mg / l / 4h):>20 The mixture does not contain substances classified in this hazard class.

*ATEmix value was calculated using relevant converted acute toxicity point estimate included in 3.1.2 table from Regulation 1272/2008/EC.

Skin corrosion/irritation

Based on available information, classification criteria are not met.

Serious eye damage/irritation

Based on available information, classification criteria are not met.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available information, classification criteria are not met.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Based on available information, classification criteria are not met.

Specific target organ toxicity - single exposure

Based on available information, classification criteria are not met.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure [lungs].

Aspiration hazard

Based on available information, classification criteria are not met

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin contact:	May cause an allergic skin reaction.
Eye contact:	Possible redness, tearing, temporary irritation
Ingestion:	May cause irritation of the mucous membranes of gastrointestinal tract, nausea, vomiting.
Inhalation:	Exposure may cause coughing or wheezing. May cause damage to organs [lung organs] through prolonged or repeated exposure.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The components of the mixture do not affect the functioning of the hormonal system in accordance with the evaluation criteria defined in the Regulations: (EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605.

11.2.2 Other information

Not applicable to substances.

Section 12: Ecological information

12.1 Toxicity

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use. In order to minimise long term global pollution consideration should be given to:

- Reduction in consumption of disposable products and packaging.
- Participation in recycling activities

12.2 Persistence and degradability

It is not determined for the mixture.

12.3 Bioaccumulative potential

It is not determined for the mixture.

12.4 Mobility in soil

Insoluble in water.

The mobility of the substance depends on their hydrophilic and hydrophobic properties and abiotic and biotic conditions of soil, including its structures, climatic conditions, seasons (in Poland, in a variable moderate climate) and soil organisms, mainly (bacteria, fungi, algae, invertebrates).

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Endocrine disrupting properties

The product shall not contain ingredients included on the list established in accordance with Article 59(1) as having endocrine disrupting properties or ingredients with endocrine disrupting properties according to the criteria laid down in Regulation 2017/2100/EU or Regulation 2018/605/EU in concentrations equal to or greater than 0.1%.

12.7 Other adverse effects

The mixture is not classified as hazardous to the ozone layer. There should be considered the possibility of other harmful effects of the individual components of the mixture on the environment. (eg. the ability of disrupting endocrine, the impact of global warming potential).

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

Hazardous waste codes (EWC):

16 05 08* discarded organic chemicals consisting of or containing hazardous substances

15 01 10* packaging containing residues of or contaminated by hazardous substances

Legal basis: Directive 2008/98/EC /2014/955/UE

Section 14: Transport information

14.1 UN number or ID number

Not applicable, product is not classified as hazardous during transport.

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Product is not classified as dangerous for the environment in accordance with transport regulations

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Inapplicable

Section 15: Regulatory information

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	No 3; No 75
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Other legislation:

- 1907/2006/EC** Regulation on Registration, Evaluation, Authorisation 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
- 1272/2008/EC** of the Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures - amending and repealing Directive 67/548/EEC and 1999/45/EC, and Regulation (EC) No 1907/2006.

3. **2018/669/UE** Commission Regulation (EU) 2018/669 of 16 April 2018 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. Text with EEA relevance.
4. **790/2009/EC** of 10 August 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.
5. **2008/98/EC** Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
6. **94/62/EC** Commission Directive 2013/2/EU of 7 February 2013;amending Annex I to Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste
7. **2015/830/EU** Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
8. **2013/10/EU** Commission Directive of 19 March 2013 amending Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures Text with EEA relevance
9. **European Agreement Concerning the International Carriage of Dangerous Goods by Road 2019-2021**

15.2 Chemical safety assessment

The supplier has not assessed chemical safety. It is not required for the mixture.

Section 16: Other information

Other sources of information:

IUCLID Data Bank (European Commission – European Chemicals Bureau).

ESIS – European Chemical Substances Information System (European Chemicals Bureau).

The information above is based on the currently available data concerning the product and the experience and knowledge in this field of the producer.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Koelner Rawlplug IP Sp. z o.o. shall not be held liable for any damage resulting from handling or from contact with the above product.

Classification according to Regulation (EC) No 1272/2008		
Skin Sens. 1	H317	calculation method
STOT RE 2	H373	calculation method

H (hazard) phrases specified in point 2 and 3 hereof:

H317	May cause an allergic skin reaction
Skin Sens. 1	Sensitisation — Skin, hazard category 1, 1A, 1B
H319	Causes serious eye irritation.
Eye Irrit. 2	Serious eye damage/eye irritation, Hazard Category 2
H373	May cause damage to organs
STOT RE 2	Specific target organ toxicity — Repeated exposure, Hazard Category 2
H412	Harmful to aquatic life with long lasting effects
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
H372	Causes damage to organs through prolonged or repeated exposure Category 3
STOT RE 1	Specific target organ toxicity — Repeated exposure, Hazard Category 1
H300	Fatal if swallowed.
Acute Tox 2	Acute toxicity (oral), Hazard Category, 2

Explanation of returns

CEN	European Committee for Standardisation
C&L	Classification and Labelling
CLP	Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008
CAS	Chemical Abstracts Service number
COM	European Commission
CMR	Carcinogen, Mutagen, or Reproductive Toxicant
CSA	Chemical Safety Assessment
CSR C	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
DPD	Dangerous Preparation Directive 1999/45/EEC
DSD	Dangerous Substances Directive 67/548/EEC
EC	European Commission
EC ₅₀	Half maximal effective concentration
ECB	European Chemicals Bureau Europejskie
ECHA	European Chemicals Agency
EC	Number EINECS and ELINCS Number (see also EINECS and ELINCS)
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of notified Chemical Substances
EN	European Standard
EU	European Union
GHS	Globally Harmonized System
IC ₅₀	Half maximal inhibitory concentration
IUCLID	International Uniform Chemical Information Database
IUPAC	International Union for Pure Applied Chemistry
LC ₅₀	Lethal concentration, 50%
LD ₅₀	Median Lethal Dose
MSDS	Material Safety Data Sheet
PBT	Persistent, Bioaccumulative and Toxic substance
PEC	PEC Predicted Effect Concentration
PNEC(s)	Predicted No Effect Concentration(s)
PPE	Personal Protection Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
SIEF	Substance Information Exchange Forum
STOT	Specific Target Organ Toxicity
(STOT) RE	Repeated Exposure
(STOT) SE	Single Exposure
SVHC	Substances of Very High Concern
vPvB	Very Persistent and Very Bioaccumulative

Training

Prior to working with the product you should be familiar with safety rules for handling the chemicals, in particular take proper workplace training.

Section 1: Identification of the substance/mixture and of the company/undertaking
1.4. Product identifier

R-KER-II, R-KER-II-W, R-KER-II-S – component B
 UFI Code: JJ40-SOGP-KOOH-VYHH

1.5. Relevant identified uses of substance or mixture and uses advised against

Identified uses: Chemical anchoring system for building industry

Uses advised against: Every way of using not mentioned above or in the point

7.3

1.6. Details of the supplier of the safety data sheet

Company name and address:

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

Telephone number: 730 975 700
 E-mail (competent person): infochem@rawlplug.com

1.4 Emergency telephone number

Nationwide emergency phone number (8:00 – 16:00): + 48 71 320 91 00

PL: 112 (emergency call)

Emergency telephone number				
Country	Official advisory body	Address	Emergency number	Remark
Austria	Vergiftungsinformationszentrale (Poisons Information Centre)	Stubenring 6 1010 Wien	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base – Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Bulgaria	Национален токсикологичен информационен център (National Toxicological Information Centre) Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов" (National Clinical Toxicology Centre), Emergency Medical Institute "Pirogov"	21 Totleben Boulevard 1606 SOFIA	+359 2 9154 409	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Cyprus	Κέντρο Δηλητηριάσεων		1401	Operating hours 24 hours / 24 hours, 7 days a week
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftnlægen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 29 Helsinki	+358 9 471 977 +358 9 4711	
France	Centre Antipoison et de Toxicovigilance de Paris Hôpital Fernand Widal	200 rue du Faubourg Saint-Denis 75475 Paris Cedex 10	+33 1 40 05 48 48	
France	Centre Antipoison et de Toxicovigilance de Marseille Hôpital Sainte Marguerite	270 boulevard de Sainte Marguerite 13274 Marseille Cedex 09	+33 4 91 75 25 25	
Germany	Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik rechts der Isar der Technischen Universität München	Ismaninger Straße 22 81675 München	+49 (0) 89 19240	
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 (0) 30 19240	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	

Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai Tájékoztató Szolgálat	Nagyvárud tér 2. 1437 Budapest, Pf. 839 1097 Budapest	+36 80 20 11 99	
Iceland	Eitrunarmiðstöð Landspítali	Fossvogi 108 Reykjavik	+354 543 22 22	
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveneni Dipartimento di Tossicologia Clinica, Università Cattolica del Sacro Cuore	Largo Agostino Gemelli 8 168 Roma	+39 06 305 4343	
Latvia	Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038 Rīga	+371 67 04 24 73	
Lithuania	Apsinuodijimų informacijos biuras	Birutės g. 56 8110 Vilnius	+370 5 236 20 52 +370 687 53378	
Luxembourg	Centre Anti-Poisons/ Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Netherlands	Nationaal Vergiftigingen Informatie Centrum Universitair Medisch Centrum Utrecht, Het Nationaal Vergiftigingen Informatie Centrum (NVIC) informeert (dieren-) artsen, apothekers en andere professionele hulpverleners over de mogelijke gezondheidseffecten en behandelingsmogelijkheden bij vergiftigingen. Het NVIC is hiervoor dag en nacht bereikbaar, zowel telefonisch als via internet	Huispostnummer B.00.118 PO Box 85500 3508 GA Utrecht	+31 30 274 88 88	Only for the purpose of informing medical personnel in cases of acute intoxications
Norway	Giftinformasjonens Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Poland	National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	
Portugal	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013 Lisboa	+351 808 250 143	
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Serbia	Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40 (24h) +381 11 3672 187	
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinikapracovnéhrolekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Slovenia	Center za kliničnotoksikologijo in farmakologijo Internaklinika, UKCL	Zaloška cesta 7 1525 Ljubljana	+386 41 650 500	
Spain	Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Sevilla	Carretera de San Jerónimo Km 0,4 41080 Sevilla	+34 91 562 04 20	(Toxicological emergencies only). Information in Spanish (24/7)
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	(from abroad: +41 44 251 51 51) non urgent inquiry: +41 44 251 66 66
Switzerland	Tox Info Suisse	Freiestrasse 16 8032 Zürich	145	

Section 2: Hazards identification

2.2. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Physical and chemical hazards:

Organic Peroxides, Types C, D, E, F [Types E] [Org. Perox. E]

Heating may cause a fire. (H242)

Health hazards

Classification according to Regulation (EC) No 1272/2008

Sensitisation Skin, Hazard Category 1 [Skin Sens. 1]

May cause an allergic skin reaction. (H317)

Serious eye damage/eye irritation, Hazard [Category 2] [Eye Irrit. 2]

Causes serious eye irritation (H319)

Environmental hazards:**Hazardous to the aquatic environment Acute Hazard, Category 1 (Aquatic Acute 1)**

Very toxic to aquatic life (H400)

Hazardous to the aquatic environment Chronic Hazard, Category 1 [Aquatic Chronic 1]

Very toxic to aquatic life with long lasting effect (H410)

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008****Pictograms**

GHS02



GHS07



GHS09

Signal word: WarningSupplemental Hazard Statements on labels

Contains: Dibenzoyl peroxide

Hazard statement(s)

H242 Heating may cause a fire.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)Prevention:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash hands thoroughly after handling

P260 Do not breathe dust

P273: Avoid release to the environment.

P102 Keep out of reach of children

Response:

P305 + P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Store:

P403+P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

The substances contained in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. The product does not contain substances included in the list established in accordance with Article 59 (1) for

having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

Section 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Substance identifier	Name of the substance	Weight fraction %	Classification in line with The Regulation (EC) No. 1272/2008		
			Signal Word Code(s)	Hazard Class and Category Code(s)	Hazard Statement Code(s)
CAS No: 94-36-0 CE No 202-327-6 Index No: 617-008-00-0 REACH No: 01-2119511472-50-xxxx	<u>Dibenzoyl peroxide [1]</u>	15<x<20	GHS01 GHS02 GHS07 GHS09 Dgr	Org. Perox. B Eye Irrit. 2 Skin Sens. 1 Aquatic Acute 1 M=10 Aquatic Chronic 1 M= 10	H241 H319 H317 H400 H410
CAS No: 107-21-1 CE No 203-473-3 Index No: 603-027-00-1 REACH No: 01-2119456816-28-xxxx	<u>Ethane-1,2-diol [1,2]</u>	5<x<10	GHS07 GHS08 Wng	Acute Tox. 4 STOT RE 2	H302 H373

[1] Substance with national exposure limit in the workplace

[2] Substance with UE exposure limit in the workplace

Full H phrases are specified in point 16 hereof.

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures general:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

<u>Inhalation:</u>	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<u>Skin contact:</u>	Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
<u>Eye contact:</u>	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
<u>Ingestion:</u>	Drink plenty of water. Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

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

<u>Skin contact:</u>	May cause an allergic skin reaction.
<u>Eye contact:</u>	Causes serious eye irritation.
<u>Ingestion:</u>	May cause irritation of the mucous membranes of gastrointestinal tract, nausea, vomiting.
<u>Inhalation:</u>	Exposure may cause coughing or wheezing.

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

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, powder, carbon dioxide, water in spray.

Unsuitable extinguishing media:

Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

The dry product can sustain combustion. During combustion harmful gases consisting of carbon oxides may be produced. Do not inhale combustion products, may cause health risk.

5.3. Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Containers may burst if heated due to the rise of pressure. In case of fire cool endangered containers with water fog from safe distance. Do not let extinguishing water to reach drainage system. Collect used extinguishing media.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Take unprotected persons out of the risk area. Avoid direct contact with the mixture. Do not inhale dust. Remove all sources of ignition.

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

Provide adequate ventilation.

For emergency responders

Ensure that breakdown and its results are only trained personnel. Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Recover mechanically the product. On land, sweep or shovel into suitable containers. Store away from other materials. Dispose of materials or solid residues at an authorized site.

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

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact during pregnancy/while nursing. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid exceeding the given occupational exposure limits (see section 8). For personal protection see section 8. Use only non-sparking tools. Take precautionary measures against static discharge.

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)

Chemical anchoring system for building industry.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Dibenzoyl peroxide [94-36-0]					
Limit value - Eight hours			Limit value - Short term		
	ppm	mg/m³	ppm	mg/m³	
Austria		5 inhalable aerosol		10 inhalable aerosol	
Belgium		5			
Denmark		5		10	
Finland		5		10 (1)	
France		5			
Germany (AGS)		5 inhalable aerosol		5 inhalable aerosol (1)	
Germany (DFG)		5 (1)		5 (1)(2)	
Hungary		5 (1)		5 (1)(2)	
Ireland		5			
Norway		5			
Poland		5		10 (1)	
Spain		5			
Switzerland		5 inhalable aerosol		5 inhalable aerosol	
United Kingdom		5			
Remarks					
Finland	(1)	15 minutes average value			
Germany (AGS)	(1)	15 minutes average value			
Germany (DFG)	(1)	Inhalable fraction (2) 15 minutes average value			
Hungary	(1)	Skin (2) 15 minutes average value			
Poland	(1)	15 minutes average value			
Spain	sen				
Ethane-1,2-diol [107-21-1]					
Limit value - Eight hours			Limit value - Short term		
	ppm	mg/m³	ppm	mg/m³	
Belgium	20 (1)(2)	52 (1)(2)	40 (1)(2)(3)	104 (1)(2)(3)	
European Union	20	52	40 (1)	104 (1)	
Finland	20	50	40 (1)	100 (1)	
Hungary		52 (1)		104 (1)(2)	
Italy	20 (1)	52 (1)	40 (1)(2)	104 (1)(2)	
Norway	20 (1)	52 (1)	40 (1)(2)	104 (1)(2)	
Romania	20	52	40 (1)	104 (1)	
Sweden	10	25	40 (1)	104 (1)	
The Netherlands		52 (1)		104 (1)(2)	
Remarks					
Belgium (1) Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (2) Additional indication "M" means that irritation occurs when the exposure exceeds the limit value or there is a risk of acute poisoning. The work process must be designed in such a way that the exposure never exceeds the limit value. For evaluation, the sampled period should be as short as possible. However, the sampled period shall be long enough to perform a reliable measurement. The measured result shall be related to the considered period. (3) 15 minutes average value					
European Union (1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value					

(IOELV) ~ (for references see bibliography)				
Finland	(1)	15 minutes average value		
Hungary	(1) Skin (2)	15 minutes average value		
Italy	(1) Skin (2)	15 minutes average value		
Norway	(1) Skin (2)	15 minutes average value		
Romania	(1)	15 minutes average value		
Sweden	(1)	15 minutes average value		
The Netherlands	(1) Skin (2)	15 minutes average value		
1-Methoxypropyl acetate [108-65-6]				
Austria	50	275	100	550
Belgium	50	275	100	550
Denmark	50 (1)	275 (1)	100 (1)(2)	550 (1)(2)
European Union	50	275	100 (1)	550 (1)
Finland	50	270	100 (1)	550 (1)
France	50	275	100 (1)	550 (1)
Germany (AGS)	50	270	50 (1)	270 (1)
Germany (DFG)	50	270	50 (1)	270 (1)
Hungary	275	550		
Ireland	50	275	100 (1)	550 (1)
Israel	50	270		
Italy	50 (1)	275 (1)	100 (1)(2)	550 (1)(2)
Latvia	50	275	100 (1)	550 (1)
Norway	50 (1)	270 (1)		
Poland	260	520 (1)		
Romania	50	275	100 (1)	550 (1)
Spain	50 (1)	275 (1)	100 (1)(2)	550 (1)(2)
Sweden	50	275	100 (1)	550 (1)
Switzerland	50	275	50	275
The Netherlands		550		
United Kingdom	50	274	100	548
Remarks				
Belgium Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.				
Denmark(1) Skin (2) 15 minutes average value				
European Union (1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ (for references see bibliography)				
Finland (1) 15 minutes average value				
France Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value				
Germany (AGS) (1) 15 minutes average value				
Germany (DFG) (1) 15 minutes average value				
Ireland (1) 15 minutes reference period				
Italy (1) Skin (2) 15 minutes average value				
Latvia (1) 15 minutes average value				
Norway (1) Skin				
Poland(1) 15 minutes average value				
Romania (1) 15 minutes average value				
Spain (1) Skin (2) 15 minutes average value				
Sweden (1) 15 minutes average value				

Legal basis:

Directive 2014/27/Eu Of The European Parliament And Of The Council of 26 February 2014 amending Council Directives 92/58/EEC, 92/85/EEC, 94/33/EC, 98/24/EC and Directive 2004/37/EC of the European Parliament and of the Council, in order to align them to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

COMMISSION DIRECTIVE 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC. COMMISSION DIRECTIVE 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC. COMMISSION DIRECTIVE 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

DNEL/PNEC

Benzoyl peroxide [94-36-0]	
DNEL Workers	
long-term, dermal, systemic:	13.3 mg/kg
long term, inhalative, systemic:	39 mg/m ³
long-term, dermal, local:	0.34 mg/cm ²
DNEL Consumer	
long term, oral, local:	2 mg/kg
PNEC	
water (fresh water):	0.0002 mg/L
water (sea water):	0.00002 mg/L
sediment (fresh water):	0.013 mg/kg
sediment (sea water):	0.001 mg/kg
soil: 0.003 mg/kg	
sewage treatment plant:	0.35 mg/L
Ethylene glycol [107-21-1]	
DNEL/DMEL (Employees)	
Systematic, long-term effects: skin	106 mg/kg
Systematic, long-term effects: inhalation	35 mg/cm ³
DNEL/DMEL (Consumers)	
Systematic, long-term effects: inhalation	7 mg/m ³
Systematic, long-term effects: skin	53 mg/kg
PNEC	
PNEC water (fresh water)	10 mg/l
PNEC marine water	1 mg/l
PNEC soil	1.53 mg/kg
Freshwater sediment	20.9 mg/kg
STP (water treatment plants)	199 mg/l

Recommended monitoring procedures

Monitoring procedures should be used for concentrations of hazardous components in the air. Air quality control procedures should be used in the workplace - as long as they are available and reasonable for the job - in accordance with the relevant Polish or European Standards, taking into account the conditions prevailing at the site of exposure and corresponding measurement methodologies adapted to the conditions work. Mode, type and frequency of tests and measurements should meet the requirements of the Regulation of the Minister of Health on 2 February 2011. (Dz. U. 2011 No. 33, item. 166).

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate vapours, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.2.2 Individual protection measures, such as personal protective equipment

Breathing equipment: Not required in case of adequate ventilation. In case of brief exposure or low pollution use respiratory filter device. At concentrations causing irritation use mask with filter. .

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Protection of hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene at work:

Apply general hygiene at work rules. After work, remove contaminated clothes and wash thoroughly the whole body. Wash your hands and face during breaks. Restrain from drinking and eating or smoking at work.

8.2.3 Environmental exposure controls

Avoid release to the environment, do not enter the sewage system. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colour:	Black
Odour:	Characteristic
Smell threshold	Information unavailable
Melting/ clotting point	0 °C
Initial boiling point and boiling range:	Information unavailable
Flammability:	May cause fire
Upper/lower flammability or explosive limits:	Information unavailable
Flash point:	Above the SADT value
Auto-ignition temperature:	SADT* = 50°C [Benzoyl Peroxide]
Decomposition temperature:	Information unavailable
pH	4-5
Kinematic viscosity (23°C; 100 [s-1]):	3,6 ± 0,5 [Pa·s] (EN ISO 3219)
Solubility:	Insoluble in water
Partition coefficient: n-octanol/water:	Information unavailable
Vapour pressure:	Information unavailable
Density and/or relative density	1,4-1,5 g/cm ³
Relative vapour density	Information unavailable
Particle characteristics	Paste

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Information unavailable.

9.2.2 Other safety characteristics

* SADT (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating

decomposition may occur with a substance in the packaging as used in transport.

Section 10: Stability and reactivity

10.1 Reactivity

No reactivity under recommended storage and handling conditions.

10.2 Chemical stability

Stable under recommended storage and usage conditions.

Exothermic thermal decomposition.

Visible decomposition with spontaneous ignition on heating.

SADT = 50 °C

SADT (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport.

A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT.

Contact with incompatible substances can cause decomposition at or below the SADT.

10.3 Possibility of hazardous reactions

Reacts with reducing agents. Reacts with heavy metals. Reacts with alkali, amines and strong acids.

10.4 Conditions to avoid

Heavy metals, alkalia, amines and strong acids.

10.5 Incompatible materials

Reducing agents like amines, acids, alkali, compounds based on heavy metals (p.e. accelerators)

10.6 Hazardous decomposition products

Depending on the decomposition conditions, complex mixtures of chemical substances can be released:

carbon dioxide (CO₂), carbon monoxide and other organic compounds. Reference to other sections: 5.2.

Section 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity of components

Ethylene glycol

LD50 (oral, rat): 7712 mg/kg

LD50 (dermal, mouse): >3500 mg/kg

Dibenzoyl peroxide

LD50 (oral, rat) >5000 mg/kg

Toxicity of mixture

ATE MIX oral (mg / kg):>2000 The mixture does not contain substances classified in this hazard class.

ATE MIX dermal (mg/kg):)>2000 The mixture does not contain substances classified in this hazard class.

ATE MIX inhalation (mg / l / 4h):>20 The mixture does not contain substances classified in this hazard class.

*ATEmix value was calculated using relevant converted acute toxicity point estimate included in 3.1.2 table from Regulation 1272/2008/EC.

Skin corrosion/irritation

Based on available information, classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available information, classification criteria are not met.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Based on available information, classification criteria are not met.

Specific target organ toxicity - single exposure

Based on available information, classification criteria are not met.

Specific target organ toxicity - repeated exposure

Based on available information, classification criteria are not met.

Aspiration hazard

Based on available information, classification criteria are not met

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin contact:	May cause an allergic skin reaction.
Eye contact:	Causes serious eye irritation
Ingestion:	May cause irritation of the mucous membranes of gastrointestinal tract, nausea, vomiting.
Inhalation:	There may be irritation. Exposure may cause coughing or wheezing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The components of the mixture do not affect the functioning of the hormonal system in accordance with the evaluation criteria defined in the Regulations: (EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605.

11.2.2 Other information

Not applicable to substances.

Section 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effect.

In order to minimise long term global pollution consideration should be given to:

- Reduction in consumption of disposable products and packaging.
- Participation in recycling activities

Acute toxicity of components

Ethylene glycol

fish: LC50 Pimephales promelas : 72860 mg/l/96h

Daphnia: EC50 Daphnia magna >=100 mg/l / 48h / OECD 202

Dibenzoyl peroxide

fish: LC50 Oncorhynchus mykiss : 0.0602 mg/l / 96h / OECD 203

Daphnia: EC50 Daphnia magna : 0.110 mg/l / 48h / OECD 202
algae: EC50 Pseudokirchnerella subcapitata : 0.0711 mg/l / 72h / OECD 201

12.2 Persistence and degradability

It is not determined for the mixture.

Dibenzoyl peroxide

Ready Biodegradability in water / 28d 71 % (OECD TG 301 D)

Ethylene glycol

90-100% decomposition after 10 days (DOC parameter). Readily biodegradable (OECD 301 A)

12.3 Bioaccumulative potential

It is not determined for the mixture.

Dibenzoyl peroxide

Log Kow 3.2 (OECD TG 117)

12.4 Mobility in soil

Insoluble in water.

The mobility of the substance depends on their hydrophilic and hydrophobic properties and abiotic and biotic conditions of soil, including its structures, climatic conditions, seasons (in Poland, in a variable moderate climate) and soil organisms, mainly (bacteria, fungi, algae, invertebrates).

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Endocrine disrupting properties

The product shall not contain ingredients included on the list established in accordance with Article 59(1) as having endocrine disrupting properties or ingredients with endocrine disrupting properties according to the criteria laid down in Regulation 2017/2100/EU or Regulation 2018/605/EU in concentrations equal to or greater than 0.1%.

12.7 Other adverse effects

The mixture is not classified as hazardous to the ozone layer. There should be considered the possibility of other harmful effects of the individual components of the mixture on the environment. (eg. the ability of disrupting endocrine, the impact of global warming potential).

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

Hazardous waste codes (EWC):

16 05 08* discarded organic chemicals consisting of or containing hazardous substances

15 01 10* packaging containing residues of or contaminated by hazardous substances

Legal basis: Directive 2008/98/EC /2014/955/UE

Section 14: Transport information



14.1 UN number or ID number

ADR/RID/IMDG/IATA: UN3077

14.2 UN proper shipping name

ADR/RID/IMDG/IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S

Special provisions 274: Dibenzoyl peroxide

14.3 Transport hazard class (es)

ADR/RID/IMDG/IATA: 9

14.4 Packing group

ADR/RID/IMDG/IATA: III

14.5 Environmental hazards

ADR/RID/IMDG/IATA: The product is classified as dangerous for the environment according to criteria contained in the transport rules

14.6 Special regulations:

ADR

Tunnel restriction code:	[-]
Transport category::	3/ limited 1000 kg
LQ [3.4.6]:	5 kg
Excepted Quantities	E1
Packing instructions:	P002; LP02; IBC08.R001
Special provisions:	375,274;335;601/PP12; B3; V13.VC1.VC2

IMDG:

Special provisions	274. 335. 966.967.969/ PP12. B3
EmS:	F-A, S-F
Stowage and handling	Category A SW23
Limited Quantity:	5 kg
Excepted Quantities	E1
Packing instructions:	P002.LP02.IBC08

IATA

IATA (Passenger)

EQ (IATA):	E1
Ltd Qty Pkg Inst. (IATA) :	Y956
Ltd Qty Max Net Qty/Pkg:	30 kg G
Packing instructions::	956
Max Net Qty/Pkg:	450 Kg

IATA (Cargo)

Packing instructions:	956
Max Net Qty/Pkg:	450 Kg

Section 15: Regulatory information

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	No 3; No 75
2012/18/EU (Seveso III)	E2 environmental hazards (hazardous to the aquatic environment, cat. 2) Qualifying quantity (tonnes) for the application of lower and upper-tier requirements 200 500

Other legislation:

10. **1907/2006/EC** Regulation on Registration, Evaluation, Authorisation 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
11. **1272/2008/EC** of the Regulation of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures - amending and repealing Directive 67/548/EEC and 1999/45/EC, and Regulation (EC) No 1907/2006.
12. **2018/669/UE** Commission Regulation (EU) 2018/669 of 16 April 2018 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. Text with EEA relevance.
13. **790/2009/EC** of 10 August 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.
14. **2008/98/EC** Directive of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
15. **94/62/EC** Commission Directive 2013/2/EU of 7 February 2013; amending Annex I to Directive 94/62/EC of the European Parliament and of the Council on packaging and packaging waste
16. **2015/830/EU** Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
17. **2013/10/EU** Commission Directive of 19 March 2013 amending Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures Text with EEA relevance
18. **European Agreement Concerning the International Carriage of Dangerous Goods by Road 2019-2021**

15.2 Chemical safety assessment

The supplier has not assessed chemical safety. It is not required for the mixture.

Section 16: Other information

Other sources of information:

IUCLID Data Bank (European Commission – European Chemicals Bureau).

ESIS – European Chemical Substances Information System (European Chemicals Bureau).

The information above is based on the currently available data concerning the product and the experience and knowledge in this field of the producer.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with

regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Koelner Rawlplug IP Sp. z o.o. shall not be held liable for any damage resulting from handling or from contact with the above product

Classification according to Regulation (EC) No 1272/2008		
Skin Sens. 1	H317	calculation method
Org. Perox. B	H241	Expert assessment
Eye Irrit 2	H319	calculation method
Aquatic Acute 1	H400	calculation method
Aquatic Chronic 1	H410	calculation method

H (hazard) phrases specified in point 2 and 3 hereof:

H317	May cause an allergic skin reaction
Skin Sens. 1	Sensitisation — Skin, hazard category 1, 1A, 1B
H319	Causes serious eye irritation.
Eye Irrit. 2	Serious eye damage/eye irritation, Hazard Category 2
H241	Heating may cause a fire or explosion
Org. Perox. B	Self-Reactive Substances and Mixtures, Type B 2.1.5 — Organic Peroxides, Type B
H400	Very toxic to aquatic life.
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
H410	Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H373	May cause damage to organs
STOT RE 2	Specific target organ toxicity — Repeated exposure, Hazard Category 2
H302	Harmful if swallowed
Acute Tox4	Acute toxicity (oral), Hazard Category 4

Explanation of returns

CEN	European Committee for Standardisation
C&L	Classification and Labelling
CLP	Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008
CAS	Chemical Abstracts Service number
COM	European Commission
CMR	Carcinogen, Mutagen, or Reproductive Toxicant
CSA	Chemical Safety Assessment
CSR C	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
DPD	Dangerous Preparation Directive 1999/45/EEC
DSD	Dangerous Substances Directive 67/548/EEC
EC	European Commission
EC ₅₀	Half maximal effective concentration
ECB	European Chemicals Bureau Europejskie
ECHA	European Chemicals Agency
EC	Number EINECS and ELINCS Number (see also EINECS and ELINCS)
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of notified Chemical Substances
EN	European Standard
EU	European Union
GHS	Globally Harmonized System

IC ₅₀	Half maximal inhibitory concentration
IUCLID	International Uniform Chemical Information Database
IUPAC	International Union for Pure Applied Chemistry
LC ₅₀	Lethal concentration, 50%
LD ₅₀	Median Lethal Dose
MSDS	Material Safety Data Sheet
PBT	Persistent, Bioaccumulative and Toxic substance
PEC	PEC Predicted Effect Concentration
PNEC(s)	Predicted No Effect Concentration(s)
PPE	Personal Protection Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
SIEF	Substance Information Exchange Forum
STOT	Specific Target Organ Toxicity
(STOT) RE	Repeated Exposure
(STOT) SE	Single Exposure
SVHC	Substances of Very High Concern
vPvB	Very Persistent and Very Bioaccumulative

Training

Prior to working with the product you should be familiar with safety rules for handling the chemicals, in particular take proper workplace training.

