Print date: 24.02.2025 Update:24.02.2025

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product ID
Trade Name: Hardener for polyester resin repair kit - Repair box

1.2. Identified relevant uses of the substance or mixture and non-recommended uses
Formulation and packaging in small containers. Industrial application as a polymerization initiator for polymer production, as well as a crosslinking agent for the production of resins. Professional as a means of mesh bonding of roofing resins
[F; ERC2; PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC15; PC32] [F; ERC3; PROC5, PROC8b, PROC14; PC32]
[IS; SU11, SU12; ERC6d; PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15; PC32]
[PW; ERC8b; PROC5, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC19, PROC21; PC32] [PW; ERC8e; PROC5, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC19, PROC21; PC32]
Application of the substance/preparation
Dibenzoyl peroxide, paste Hardener
Catalyst for polymerization

1.3. Details of the safety data sheet provider
RAICHEM S.p.A.
Via Don Grazioli, 53 - Località Gavassa 42122 Reggio Emilia (Italy)
Tel. +39 0522 511182 - Fax +39 0522 920616
Information cell: RAICHEM S.p.A. - E-mail: laboratorio@raichem.it

Producer: RANAL Sp. z o.o.
Łódzka 3
42-240 Rudniki k. Częstochowy, PL
Tel.: +48 34 329 45 03
Fax: +48 34 320 12 16
Registration number: 000029202

Distributor: Ada Color Ltd
176 Brezovsko Shose, str.
4003 Plovdiv, Bulgaria
Mobile: +359896663052
Phone: +35932940456
Fax: +35932940457
Web: adacolor-bg.com

1.4. Emergency phone number
Chemicals Bureau +48 42 2538 400
RAICHEM S.p.A. - Technical support: Tel. +39 0522 511182 (Monday-Friday: 8.30 (AM) -12.30 (PM), 2.00-4.30 PM)

Additional information: Bulgaria:
Toxicology Clinic at the Hospital for Active Treatment of Sick
Patients "N.I. Pirogov" Emergency phone number:
+359 02 9154 409 (during standard working hours except Saturdays and Sundays)
+359 02 9154 346 (continuous service)

SECTION 2: DESCRIPTION OF HAZARDS
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Org. Perox. E H242 Heating may cause a fire. Eye Irrit. 2 H319
Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic reaction to the skin.
Aquatic Acute 1 H400 Highly toxic to aquatic organisms.
Aquatic Chronic 1 H410 Highly toxic to aquatic organisms, with a long-lasting effect.

2.2. Label elements
Labelling in accordance with Regulation (EC) No 1272/2008
The product is classified and labeled in accordance with CLP regulations.

Pictograms identifying the type of threat:

GHS02 GHS07 GHS09

Signal word: **Attention.**

Labelling hazard ingredients
dibenzoyl peroxide

Hazard Warnings:
H242 Heating may cause a fire. H319 Causes serious eye irritation.
H317 May cause an allergic reaction to the skin.
H410 Highly toxic to aquatic organisms, with a long-lasting effect.

Safety recommendations:
P101 If medical attention is needed, carry the packaging or label of the product. P102 Keep out of the reach of children.
P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IN CASE OF SKIN CONTACT: Wash with plenty of soap and water.
P305+P351+P338 IN CASE OF CONTACT WITH EYES: Gently rinse with water for several minutes. Remove contact lenses, if any, and as much as possible. Keep rinsing.
P403+P235 Store in a well-ventilated area. Store in a cool place.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other dangers
Results of the assessment of PBT and vPvB values
PBT: The mixture does not contain substances which, in concentrations of >0.1%, present such a hazard.
vPvB: The mixture does not contain substances which, in concentrations of >0,1%, present such a hazard.

Determination of endocrine disrupting properties:
The mixture does not contain substances that in concentrations >0.1% create such a hazard.

SECTION 3: COMPOSITION/INGREDIENT INFORMATION

3.2. Mixtures
Description: A mixture of the ingredients listed below with safe impurities

Dangerous ingredients:		
CAS: 94-36-0 EINECS: 202-327-6 Zip code number: 617-008-00-0 Reg. №.: 01-2119511472-50-XXXX	dibenzoyl peroxide Org. Perox. B, H241; Aquatic Acute 1, H400 (M=10); Aquatic, Chronic 1, H410 (M=10); Eye Irritates. 2, H319; Skin Sens. 1, H317	45-52%
CAS: 107-21-1 EINECS: 203-473-3 Postal code number: 603-027-00-1 Reg. №.: 01-2119456816-28-XXXX	ethane-1,2-diol STOT RE 2, H373; Acute Tox. 4, H302	0,1-9,9%

Additional instructions:
If the ATE value is not specified, you should familiarize yourself with the LD/LC50 values in section 11. The full text of the cited hazard guidelines is found in Chapter 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
Summary: Dirty, soaked clothing should be removed immediately.
After inhalation: Provide plenty of fresh air and call a doctor for safety.
In case of loss of consciousness, placement and transport in a stable lateral position.
In case of skin contact: In case of prolonged skin irritation, seek medical attention. Wash immediately with soap and water and rinse thoroughly.
After contact with the eye: Rinse the eyes with the eyelid open for a few minutes under running water. If symptoms persist, consult a doctor.
After ingestion: Do not induce vomiting and call a doctor.

4.2. The most significant acute symptoms and effects occurring after a certain period of time
No additional material data available

4.3. Indication of the need for any emergency medical care and special treatment
No additional material data available

SECTION 5: FIRE MEASURES

5.1. Fire extinguishing agents
Suitable extinguishing agents:
CO2, fire extinguishing powder or water jet. A large fire should be extinguished with a water jet or with foam resistant to alcohol. Fire extinguishing procedures should be adapted to the situation.

5.2. Particular hazards arising from the substance or mixture
During a fire, the following can be released:
Carbon dioxide (CO_2)
Carbon monoxide (CO)
Benzoic acid Benzene
Biphenyl
Phenyl benzoate
Under some fire conditions, the presence of traces of other poisonous substances cannot be ruled out.

5.3. Tips for firefighters Special protective equipment:
Do not inhale the gases that are formed during explosions and fires. Protect the airways with a suitable device.
Wear appropriate firefighting equipment.
Other data
Cool endangered tanks with a water jet.
Contaminated water must be collected separately, it cannot get into the sewer.

SECTION 6: EMERGENCY DISCHARGE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Keep ignition sources at a safe distance.
Wear protective clothing. Persons who are not protected should be moved to a safe place. Ensure sufficient ventilation.
In case of aerosol dust (steam) action, use respiratory protection.

6.2. Precautions to protect the environment
In case of falling into water bodies or sewers, notify the relevant authorities.
Do not allow penetration into sewage / surface water / groundwater.

6.3. Methods and materials for restraint and cleaning
Download mechanically.
Do not allow it to dry out.
Ensure sufficient ventilation.

6.4. Reference to other sections
For information on safe operation, see Section 7. For information on personal protective equipment, see Sections 8.
For information on disposal, see section 13.

SECTION 7: OPERATION AND STORAGE

7.1. Precautions for safe operation
Use only in well-ventilated areas.
Ensure good ventilation/suction in the workplace. Keep away from heat and direct sunlight.
Prepare measures against electrostatic charges.
Fire and explosion safety guidelines:
The material/product in a dry state keeps combustion. Keep ignition sources away - do not smoke tobacco.
7.2. Conditions for safe storage, including incompatibilities Storage:
Requirements for storage rooms and tanks:
Store in a cool place. Store only in the original barrels.
Guidelines on co-storage:
Do not store together with gearboxes, heavy metal compounds, acids and alkalis.
Additional instructions on storage conditions:
Store the tank in a well-ventilated area. Avoid drying.
Keep the tank tightly closed. Keep away from heat and direct sunlight.
The material stored in the original packaging, away from the sun's rays, retains its properties for a period of 12 months from the date of manufacture.
Recommended storage temperature: +5°C / +25°C.

7.3. Specific end-use(s)
No other relevant data is available.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTIVE EQUIPMENT

8.1. Control parameters

National occupational exposure limit values and biological limit values*:

Ingredients with controlled limit values depending on the workplace:	
94-36-0 Dibenzoyl Peroxide	
NDS (PL)	NDSCh: 10 mg/m³ NDS: 5 mg/m³
FOR THE	NDS: 5 mg/m³
(US) REL	NDS: 5 mg/m³
(US) TLV	NDS: 5 mg/m³
(US)	A4
107-21-1 ethane-1,2-diol	
NDS (PL)	NDSCh: 50 mg/m³ NDS: 15 mg/m³ Skóra
IOELV (EU)	NDSCh: 104 mg/m³, 40 ppm NDS: 52 mg/m³, 20 ppm Skin
TLV (US)	NDSCh:10** mg/m³, 50* ppm NDS: 25* ppm *vapor fraction:**inh.fraction, aerosol only, A4
WEEL (US)	I (2)

Information on legal provisions
NDS (PL): OJ 2024 item 1017, 10.07.24
PEL (US): Guide to Occupational Exposure Values (OSHA PELs) REL (US): Guide to Occupational Exposure Values (NIOSH RELs) TLV (US): Guide to Occupational Exposure Values (TLV)
IOELV (EU): (EU) 2019/1831
WEEL (US): Guide to Occupational Exposure Values (AIHA WEELs)

DNEL Rates		
94-36-0 Dibenzoyl Peroxide		
Oral	DNEL / Long term exposure - Systemic effects	2 mg/kg bw/d (general population) Repeated dose toxicity
Koženi	DNEL / Long term exposure - Systemic effects	17 mg/kg bw/d (general population) Repeated dose toxicity 34,3 mg/kg bw/d (workers) Repeated dose toxicity
	DNEL / Long term exposure - Local effects	0,034 mg/kg (workers) skin irritation/corrosion
Inhalable	DNEL / Long term exposure - Systemic effects	3,5 mg/m3 (general population) Repeated dose toxicity 39 mg/m3 (workers) Repeated dose toxicity
107-21-1 ethane-1,2-diol		
Kozheni	DNEL / Long term exposure - Systemic effects	53 mg/kg bw/d (general population) Repeated dose toxicity 106 mg/kg bw/d (workers) Repeated dose toxicity
Inhalable	DNEL / Long term exposure - Local effects	7 mg/m3 (general population) Skin irritation/corrosion 35 mg/m3 (workers) Skin irritation/corrosion
PNEC values		
94-36-0 Dibenzoyl Peroxide		
PNEC/aqua	0,00002 mg/l (freshwater 0,000602 mg/l (intermittent releases) 0,000002 mg/l (marine	
PNEC/sediment	water) 0,0127 mg/kg dw (freshwater) 0,00127 mg/kg dw	
PNEC/soil	(marine water) 0,0025 mg/kg dw	
PNEC/STP	0,35 mg/l (sewage treatment plant)	
107-21-1 ethane-1,2-diol		
PNEC/aqua	10 mg/l (freshwater) 10 mg/l (intermittent releases) 1 mg/l (marine water)	
PNEC/sediment	37 mg/kg DO (freshwater) 3,7 mg/kg DO (marine	
PNEC/soil	water) 1,53 mg/kg DU	
PNEC/STP	199,5 mg/l (sewage treatment plant)	

Additional tips: The basis was the lists currently in force.

8.2. Exposure control
Appropriate technical means of control No further data, see paragraph 7. Individual protective equipment as individual protective equipment
General protection and hygiene measures:
During work, do not eat, drink, smoke, do not use tobacco. The usual precautions must be observed when working with chemicals. Keep away from food, beverages and feed.
Contaminated, soaked clothing should be removed immediately. Wash your hands before rest and before the end of work.
Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin.
Respiratory protection
In case of insufficient ventilation, protection of the respiratory tract.
Hand protection:


Protective gloves

The material from which the gloves are made must be impermeable and resistant to the action of the product / substance /Drug.
Selection of material for protective gloves with regard to penetration time, penetration rate and degradation.

The material from which the gloves are made

Nitrile rubber
Recommended material thickness: ≥ 0.4 mm
The choice of suitable gloves depends not only on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. Since the product is a preparation consisting of several substances, the resistance of the materials from which the gloves are made cannot be calculated in advance and must therefore be checked before use.

Penetration time for the material from which the gloves are made

The manufacturer of the gloves must be informed about the exact time of the breakdown and observed.
For the mixture of the following chemicals, the breakout time must be at least 480 minutes (penetration in accordance with EN 16523-1:2015: Level 6).

Eye or face protection

Personal Protective Equipment Symbols*:


Tightly closed safety glasses

Body protection: Light protective equipment

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties *

General data	
State of concentration	Permanent material
Colour	Different, depending on the coloration
Smell	Characteristic
Odor threshold	Not applicable
Melting/freezing temperature	0 °C
Boiling point or initial temperature points of boiling and boiling temperature range	Not applicable Decay occurs before or during boiling
Flammability of materials	May cause fire
Lower and upper explosiveness limits	
Lower:	Not applicable
Upper:	Not applicable
Flash point	Not applicable Above the SADT value
Decomposition temperature	SADT=50° SADT: Self-Accelerating Decomposition Temperature
pH at 20 °C	4-5
Viscosity	
Kinematic viscosity	172000-754000 m2/s
Dynamic	(Brookfield, 20°C) 215000-867000 mPa·s
Solubility	
Water	Indissoluble
Partition coefficient n-octanol/water (Value Log Ratio)	Not applicable
Steam pressure	Not applicable
Density or relative density	
Density at 20 °C	1.15-1.25 g/cm3
Relative Steam Density	Not applicable
Characteristics of molecules	Hard pastes

9.2. Other Information

Appearance	
Form	In the form of paste
Important data for health and environmental protection and safety	
Ignition temperature	Not applicable
Explosive properties	The product does not pose an explosion hazard
Change of state	
Evaporation rate	Not applicable
Information on physical hazard classes	
Organic peroxides	Heating may cause a fire

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No additional material data available

10.2. Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition during storage and handling in accordance with the intended purpose. Exothermic thermal decomposition.
When heated, visible decomposition by spontaneous ignition. SADT = 50°C
SADT (Self accelerating decomposition temperature) represents the lowest temperature at which the self-accelerating decomposition of the substances contained in the traditional packaging used to transport the product will be triggered.
A dangerous self-accelerating decomposition reaction and, under certain conditions, an explosion or fire may be caused by thermal decomposition in the SADT specified herein or better than it.
Contact with incompatible materials may cause decomposition of the SADT temperature or temperature below it.

10.3. Possibility of dangerous reactions
Reactions with reducing agents.
Reactions with heavy metals.
Reactions with bases, amines and strong acids.

10.4. Conditions to avoid
No additional essential data is available.

10.5. Incompatible materials
No additional essential data is available.

10.6. Hazardous decay products
Benzoic acid Benzene
Biphenyl
Phenyl
Benzoate

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes set out in Regulation (EC) No 1272/2008*

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

Corresponding classified values of LD/LC50:		
94-36-0 Dibenzoyl Peroxide		
Oral inhalation	LD0 LC0	>2.000 mg/kg (mouse) (OECD TG 401: Acute Oral Toxicity) 24,3 mg/l (rat) (OECD TG 403: Acute Inhalation Toxicity)
107-21-1 ethane-1,2-diol		
Oral Skin Inhalation	LD50 LD50 LC50/6h	7.712 mg/kg (rat) >3.500 mg/kg (mouse) >2,5 mg/l (rat)

Initial Irritating Action: Action Type Method:
Skin corrosion / irritation Based on the available data, the classification criteria are not met.
Serious eye damage/eye irritation Irritates the eyes.
Sensitization of the respiratory tract or skin May cause an allergic reaction of the skin.
Germ cell mutagenicity Based on the available data, the classification criteria are not met.
Carcinogenicity Based on the available data, the classification criteria are not met.

Toxicity for reproduction		
94-36-0 Dibenzoyl Peroxide		
Oral	Effect on fertility – NOAEL	500 mg/kg bw/day (rat) (OECD TG 422: Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
	Effect on developmental toxicity - NOAEL	300 mg/kg bw/day (rat) (OECD TG 414: Prenatal development toxicity study)

Specific Organ Toxicity (Specific Toxicity) – Single Exposure Based on the available data, the classification criteria are not met.

Specific Organ Toxicity (Specific Organ Toxicity) - Repeated Exposure		
94-36-0 Dibenzoyl Peroxide		
Oral	Repeated dose toxicity – NOAEL	200 mg/kg bw/day (rat) Chronic toxicity – systemic effects
Leather	Repeated dose toxicity – NOEAL	833 mg/kg bw/day (rat) Chronic toxicity – systemic effects
	Repeated dose toxicity - NOAEL	0,17 mg/cm2 (mouse) Repeated dose toxicity – local effects

Inhalation hazard Based on available data, classification criteria are not met

11.2. Information on other hazards Endocrine-disrupting properties None of the ingredients are on the list.

SECTION 12: ENVIRONMENTAL INFORMATION

12.1. Toxicity

Aquatic toxicity	
94-36-0 Dibenzoyl Peroxide	
LC50 / 96h	0,0602 mg/l (fish - Oncorhynchus mykiss) (OECD TG 203: Fish, Acute Toxicity Test)
EC50 / 48h	0,11 mg/l (crustacea - Daphnia magna) (OECD TG 202: Daphnia sp. Acute Immobilisation Test)
ErC50 / 72h	0,0711 mg/l (algae - Pseudokirchneriella subcapitata) (OECD TG 201: Alga, Growth Inhibition Test)
NOEC / 96h	0,0316 mg/l (fish - Oncorhynchus mykiss) (OECD TG 203: Fish, Acute Toxicity Test)
EC10 / 21d	0,001 mg/l (crustacea - Daphnia magna) (OECD TG 211: Daphnia magna Reproduction Test)
NOEC / 72 h	0,02 mg/l (algae - Pseudokirchneriella subcapitata) (OECD TG 201: Alga, Growth Inhibition Test)
107-21-1 ethane-1,2-diol	
LC50 / 96h	72.860 mg/l (fish - Pimephales promelas)
EC50 / 48h	>100 mg/l (crustacea - Daphnia magna) (OECD TG 202: Daphnia sp. Acute Immobilisation Test)
ErC50 / 96h	6.500-13.000 mg/l (algae - Pseudokirchneriella subcapitata)
NOEC / 72 h	>100 mg/l (algae - Pseudokirchneriella subcapitata) (OECD TG 201: Alga, Growth Inhibition Test)
NOEC / 7d	8.590 mg/l (crustacea - Ceriodaphnia dubia)

12.2. Durability and degradability

94-36-0 Dibenzoyl Peroxide	
Ready Biodegradability in water / 28d	71 % (OECD TG 301 D: Ready Biodegradability: Closed Bottle Test)
107-21-1 ethane-1,2-diol	
Ready Biodegradability in water / 10d	90-100 % (OECD TG 301A: Ready Biodegradability: DOC Die Away Test)

12.3. Bioaccumulative capacity

94-36-0 Dibenzoyl Peroxide	
Log Kow	3,2 /(22°C) (OECD TG 117: Partition Coefficient (n-octanol / water), HPLC Method))
BCF	306,3 /l/kg (fish) (QSAR calculation)

12.4. Soil Portability

94-36-0 Dibenzoyl Peroxide	
Log Koc	3,8 /(22°C) (OECD TG 121: (Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC))

12.5. PBT and vPvB PBT Assessment
Results: Not applicable
vPvB: Not applicable

12.6. Endocrine disrupting properties *
The product does not contain substances with properties that disrupt hormonal balance.
12.7. Other adverse effects Caution:
Very toxic to fish. **Additional environmental guidelines:**
General instructions:
In water bodies, it is also poisonous to fish and plankton.
very toxic to aquatic organisms
Water hazard class 2 *(self-determination): harmful to water.
Do not allow penetration into groundwater, surface water or sewage. Harmful to drinking water even with penetration of minimal amounts into the soil.

SECTION 13: WASTE DISPOSAL

13.1. Waste treatment methods
Recommendations:
It cannot be processed together with household waste. Do not allow penetration into the sewer. Removal in accordance with applicable regulations.
Uncleaned packaging:
Recommendations:
Removal in accordance with applicable regulations.
Packaging that cannot be cleaned must be disposed of as material.

SECTION 14: INFORMATION ON TRANSPORTATION

14.1. UN List Number or Identification Number
ADR/RID/ADN, IMDG, IATA
UN3108

14.2. Exact name of the consignment on the UN list

ADR/RID/ADN	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE), HAZARDOUS TO THE ENVIRONMENT
IMDG	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), MARINE POLLUTANT
IATA	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)

14.3. Transport hazard class(s)
ADR/RID/DNA, IMDG

Class	5.2 Organic peroxides
Label	5.2

IATA

Class	5.2 Organic peroxides
Label	5.2

14.4. Packaging Group
ADR/RID/ADN, IMDG, IATA
N/a

14.5. Environmental hazards
Marine pollution:
Yes
Symbol (fish and trees)
Special markings (ADR/RID/ADN):
Symbol (fish and trees)

14.6. Special precautions for consumers

Attention:	Organic peroxides
Hazard identification number (Kemler number):	-
EMS Number:	F-J,S-R
Storage category	D
Storage code	SW1 Protected from heat sources.
Code for segregation	SG35 Charging "separately" SGG1-acids SG36 Charging "separately from" SGG18-bases. SG72 See 7.2.6.3.2.

14.7. Maritime transport of bulk cargo according to International Maritime Organization instruments
IMDG

Limited quantities (LQ)	500 g
UN Model Regulation:	UN 3108 ORGANIC PEROXIDE TYPE E, STAY **(DIBENZOYL PEROXIDE), 5.2, ENVIRONMENTALLY HAZARDOUS**

SECTION 15: INFORMATION ON THE REGULATORY FRAMEWORK

15.1. Substance- or mixture-specific safety, health and environmental legislation/legislation
Regulation (EC) No 1907/2006 (REACH - Registration, evaluation, authorisation and restriction of chemicals)
Regulation (EC) No 1272/2008 (CLP - Classification, labelling and packaging of substances and mixtures) Safety data sheet: Regulation (EU) No 878/2020 (amending Regulation (EC) No 1907/2006, Annex II)

Directive 2012/18/EC (Seveso)
List of hazardous substances - ANNEX I, none of the ingredients are on the list
Seveso Category
P6b SELF-ACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES
E1 Hazardous to the aquatic environment
Threshold value (in tonnes) related to the application of the requirements for high-risk enterprises 50 t Threshold value (in tonnes) related to the application of the requirements for high-risk enterprises 200 t

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II - none of the ingredients is on the list
REGULATION (EC) No 273/2004 on drug precursors - none of the ingredients are on the list
REGULATION (EC) No 111/2005 laying down rules for monitoring trade in drug precursors between the Community and third countries - none of the ingredients is on the list
REGULATION (EU) 2019/1148:
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit limit for the purposes of granting permits pursuant to Article 5 (3)) - none of the ingredients is listed

Annex II - NOTIFIABLE EXPLOSIVES PRECURSORS - none of the ingredients is listed

15.2. Safety assessment of the chemical substance or mixture

A Chemical Safety Assessment was carried out:
Dibenzoyl Peroxide - CAS 94-36-0

SECTION 16: FRIEND INFORMATION

The data is based on the current state of our knowledge, but does not definitively determine the production properties and cannot be the basis for legitimate contracts.

Relevant phrases

H241 May cause fire or explosion when heated. H302 Harmful if swallowed.
H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.
H373 May cause organ damage with prolonged or repeated exposure. H400 Highly toxic to aquatic organisms.
H410 Highly toxic to aquatic organisms, with a long-lasting effect.

Classification according to Regulation (EC) No 1272/2008

Organic peroxides	Expert assessment
Serious eye damage/eye irritation Sensitizing effect on the skin Posing a threat to the aquatic environment - Short-term (acute) threat to the aquatic environment Posing a threat to the aquatic environment - Long-term (chronic) threat to the aquatic environment	In accordance with Directive 1272/2008 (EC), the classification of a mixture is based on a calculation method using material data.

(1.2) Essential identified uses of the substance or mixture and recommended uses to be avoided

No additional material data available

Life cycle stage

F Formulation or repackaging
IS Application in industrial sites
PW General Application by Professional Employees

Application Sector

SU11 Manufacture of rubber products
SU12 Manufacture of plastic articles, including preparation of mixtures and conversion

Product Category

PC32 Detergents and polymer compounds

Process category

PROC1 Production of chemicals or refining in a closed process with no likelihood of exposure or processes with equivalent protection conditions.
PROC2 Manufacture of chemical or refined products in closed continuous processes with episodic, controlled exposure or processes with equivalent protection conditions.
PROC3 Manufacture or formulation in the chemical industry in closed batch processes with episodic, controlled exposure or processes with equivalent protection conditions.
PROC4 Chemical manufacturing where exposure opportunity arises PROC5 Mixing or combining in batch processes
PROC6 Calendering Operations PROC7 Industrial Dusting Application
PROC8a Carriage of substances or mixtures (loading/unloading) in spaces not intended for this purpose. PROC8b Carriage of substances or mixtures (loading and unloading) in spaces intended for this purpose
PROC9 Transfer of substances or mixtures into small containers (filling line intended for this purpose together with weighing)
PROC10 Brush or roller application
PROC11 Non-industrial spraying
PROC13 Handling of articles by immersion and pouring
PROC14 Tableting, pressing, squeezing, granulating, granulating PROC15 Use as laboratory reagents
PROC19 Manual actions with close contact with the substance
PROC21 Low Energy Handling and Transfer of Substances Related to/to Materials or Articles

Category of release of substances into the environment

ERC2 Formulation in Mixture
ERC3 Formulation in Rigid Matrix
ERC6d Use of Reactive Process Regulators in Polymerization Processes in an Industrial Site (Inclusion in or on the Surface of the Article)
ERC8b General application of reactive excipient (not included in or on the surface of the device, indoors) ERC8e General application of reactive excipient (not included in or on the surface of the device, outdoors)

Contact Partner: Raichem S.p.A. Previous
Version Date: 25.11.2022 Previous Version
Number: 3

Abbreviations and acronyms:
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association"
(IATA) ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
CLP: Classification, Labelling and Packaging TLV: Threshold Limit Value
TLV-TWA: Threshold Limit Value - Time Weighted Average
TLV-STEL: Threshold Limit Value - Short Term Exposure Limit
PEL: Permissible Exposure Limits
REL: Recommended Exposure Limits (Limiti di esposizione raccomandati)
IOELV: Indicative Occupational Exposure Limit Value
WEELs: Workplace Environmental Exposure Limits (BEI): Biological Exposure Indices
LD50: Lethal dose, 50 percent
LC50: Lethal Concentration, 50 percent
LC0: Lethal Concentration 0 - no effect
LD0: Maximum tested dose with no mortality.
NOAEL: No Observed Adverse Effect Level
Kow: Octanol-Water partition coefficient
Koc: Organic Carbon partition Coefficient
BCF: BioConcentration Factor
LC50: LC50: Lethal Concentration, 50 percent
EC50: Effective Concentration, 50 percent
EC10: Effective Concentration, 10 percent
ErC50: Effective Concentration, 50 percent, growth rate
NOEC: No-Observed Effect Concentration.
WGK: Wassergefährdungsklasse - Water hazard class [Germany]
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Org. Perox. B: Organic Peroxides – Type B Org.
Perox. E: Organic Peroxides – Type E/F Acute Tox.
4: Acute toxicity - Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT RE 2: STOT (Specific Organ Toxicity) – Repeated Exposure – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - Acute to the aquatic environment - Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term danger to the aquatic environment - Category 1

* Data has changed compared to the previous version