

Printing date 02.04.2024 Version: 15 (replaces version 14) Revision: 15.02.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

PEROXAN BP-40 LS · Trade name:

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

No further relevant information available.

· Application of the substance /

the mixture

Reaction initiator For industrial use

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier: PERGAN GmbH

Hilfsstoffe für industrielle Prozesse

Schlavenhorst 71 D-46395 Bocholt Tel: +49 2871 9902-0 Fax: +49 2871 9902-50

· Further information obtainable

Environment protection / Security of labour from:

Qualified person: E-mail: msds@pergan.com

1.4 Emergency telephone

- Tel: +49 2871 9902-0 number:

SECTION 2: Hazards identification

· 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 skin reaction.

STOT RF 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to

Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms









Warning

· Signal word

· Hazard-determining

components of labelling:

dibenzoyl peroxide

ethanediol

· Hazard statements H242 Heating may cause a fire.

H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

H410 Very toxic to aquatic life with long lasting effects.

P210 · Precautionary statements Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smokina.

P220 Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and

accelerators (e. g. heavy metal compounds and amines). Keep only in original packaging. P234

P264 Wash thoroughly after handling. P273 Avoid release to the environment. P280

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. P410

Protect from sunlight.

P411+P235

Store at temperatures not exceeding +25°C. Keep cool.

P420 Store separately

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

regulations.

· 2.3 Other hazards

Results of PBT and vPvB assessment

· PRT· The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

· vPvB: The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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(Contd. of page 1) Determination of endocrinedisrupting properties

The product does not contain substances with endocrine disrupting properties

SECTION 3: Composition/information on ingredients

· 3 2 Mixtures

· Dangerous components:		
CAS: 94-36-0	dibenzoyl peroxide	40-50%
EINECS: 202-327-6	Org. Perox. B, H241; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Eye Irrit. 2,	
Index number: 617-008-00-0		
Reg-No.: 01-2119511472-50		
CAS: 107-21-1	ethanediol	25-30%
EINECS: 203-473-3	STOT RE 2, H373; Acute Tox. 4, H302	
Index number: 603-027-00-1		
Reg-No.: 01-2119456816-28		
· Additional information:	For the wording of the listed hazard phrases refer to section 16.	

SECTION 4: First aid measures

4.1 Description of first aid measures

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 General information:

Take care of personal protection for the first aider.

After inhalation: Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Take affected persons into fresh air and keep quiet.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

Immediately remove contaminated clothing.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. · After eye contact:

 After swallowing: Call for a doctor immediately.

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

No further relevant information available.

4.3 Indication of any immediate medical attention and special

treatment needed No further relevant information available

SECTION 5: Firefighting measures

5.1 Extinguishing media

· Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from

Under certain fire conditions, traces of other toxic gases cannot be excluded. the substance or mixture

Hydrocarbons, carbondioxide and -monoxid.

· 5.3 Advice for firefighters

· Protective equipment: Do not inhale explosion gases or combustion gases. Additional information Cool endangered receptacles with water spray.

Self-protection first!

SECTION 6: Accidental release measures

 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

In case of further temperature should be cooled with waterspray from a safe distance.

Wear breathing apparatus with filter A during decomposition of materials.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions: Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.



Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

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Ensure adequate ventilation.

Large quantities should be diluted with suitable desensitation agent to a concentration below 10 % before

disposal.

Soak up with absorbant material (e. g. Vermiculit) and dispose of in accordance with government

regulations.

· 6.4 Reference to other sections See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

In case of large spillage the environmental authority should be informed.

SECTION 7: Handling and storage

· 7.1 Precautions for safe

handling

Keep away from heat and direct sunlight.

Open and handle receptacle with care.

Prevent formation of aerosols.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Do not refill residue into storage receptacles. Restrict the quantity stored at the work place.

Before break and at the end of work hands should be thoroughly washed.

Only use tools made of suitable materials (e. g. polyethylene or stainless steel).

Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavymetal compounds and amines).

While using do not eat, drink or smoke. Do not generate flames or sparks.

Keep product and emptied container away from heat and sources of ignition.

Avoid shock and friction.

Take precautionary measures against static discharges.



Do not smoke.

· Information about fire - and explosion protection:

Protect from heat.

Protect against electrostatic charges.

Prevent impact and friction.

Use explosion-proof apparatus / fittings and spark-proof tools.

Fumes can combine with air to form an explosive mixture.



Wear shoes with conductive soles.

Formation of flammable or explosive gas/air-mixtures is possible.



Avoid open flames, sparks, direct sunlight and other sources of ignition.

Keep ignition sources away - Do not smoke.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage: · Requirements to be met by Pay attention to the special requirements of your local autorithies for storing dangerous goods.

storerooms and receptacles:

Store only in the original receptacle. Prevent any seepage into the ground.

Use only receptacles specifically permitted for this substance/product.

· Information about storage in one common storage facility:

Do not store or park organic peroxide together with heavy metal compounds and amines.

Store away from foodstuffs, drinks and feeding stuffs.

Further information about storage conditions:

Keep container tightly sealed. Protect from heat and direct sunlight. Protect from contamination. Storage in a collecting room is required.

Recommended storage temperature (To maintain quality):

+5 +30 °C

Storage class: 5.2

7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

	· Ingredients with li	mit values that require monitoring at the workplace:
	94-36-0 dibenzoyl p	peroxide
	OEL (Ireland)	Long-term value: 5 mg/m³ Sens
	WEL (Great Britain)	Long-term value: 5 mg/m³
Ì	107-21-1 ethanedio	
	OEL (Ireland)	Short-term value: 40 mg/m³, 104 ppm Long-term value: 52 mg/m³, 20 ppm Sk, IOELV
	IOELV (EU)	Short-term value: 104 mg/m³, 40 ppm Long-term value: 52 mg/m³, 20 ppm Skin
	WEL (Great Britain)	Short-term value: 104** mg/m³, 40** ppm Long-term value: 10* 52** mg/m³, 20** ppm Sk *particulate **vapour

· DNELs

94-36-0 dibenzoyl peroxide

Dermal DNEL Longterm System 13,3 mg/kg bw/day (Worker) Inhalative DNEL Longterm System 39 mg/m3 (Worker)	Oral	DNEL Longterm System	2 mg/kg bw/day (General population)
Inhalative DNEL Longterm System 39 mg/m3 (Worker)	Dermal	DNEL Longterm System	13,3 mg/kg bw/day (Worker)
	Inhalative	DNEL Longterm System	39 mg/m3 (Worker)

107 21 1 othanodial

107-21-16	tilalieuloi	
Dermal	DNEL Longterm System	106 mg/kg bw/day (Worker)
Inhalative	DNEL Longterm Local	35 mg/m3 (Worker)

· PNECs

94-36-0 dibenzoyl peroxide

• •	
PNEC Marinewater sed	0,001 mg/kg sed dw
PNEC Freshwater	0,00002 mg/l (AF 50)
PNEC Freshwater sed	0,013 mg/kg sed dw
PNEC STP	0,35 mg/l

PNEC Marinewater 0,000002 mg/l (AF 500)

107-21-1 ethanediol

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Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

· Appropriate engineering

controls No further data; see section 7.

· Individual protection measures, such as personal protective equipment

General protective and

hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid close or long term contact with the skin. Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working. Use skin protection cream for skin protection.

Be sure to clean skin thoroughly after work and before breaks. · Respiratory protection: Not necessary if room is well-ventilated.

Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated.

Filter A2

· Hand protection Only use chemical-protective gloves with CE-labelling of category III.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Protective gloves

Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of

White

Characteristic

Not applicable.

Not applicable.

Not applicable.

Not determined.

Not determined. > SADT

> +60 °C (SADT)

Not determined.

Not determined.

Undetermined.

not determined

Not determined.

Not determined.

Not determined

500 - 1500 mPas

Not determined.

quality and varies from manufacturer to manufacturer.

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

Neoprene

Penetration time of glove

material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection

Tightly sealed goggles

· Body protection:



Protective work clothing

SECTION 9: Physical and chemical properties

• 9.1 Information of	ı basic physical	and chemical	properties
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General Information

· Colour:

· Odour:

Odour threshold:

· Melting point/freezing point:

Boiling point or initial boiling point and boiling range

· Flammability

Lower and upper explosion limit

· Lower:

· Upper:

· Flash point:

Decomposition temperature:

· pH

· Viscosity:

· Kinematic viscosity

Dynamic at 20 °C: Solubility

· water:

· Partition coefficient n-octanol/water (log value)

· Vapour pressure:

· Density and/or relative density

· Density:

Relative density

· Vapour density

Not determined. No further relevant information available.

Suspension

· 9.2 Other information · Appearance:

Form: · Important information on protection of health and environment,

and on safety.

Ignition temperature:

· Explosive properties:

· Change in condition · Evaporation rate

Product is not selfigniting. Product does not present an explosion hazard.

Not determined

· Information with regard to physical hazard classes

 Explosives · Flammable gases

· Aerosols Oxidising gases · Gases under pressure

Flammable liquids Flammable solids

· Self-reactive substances and mixtures Pyrophoric liquids

· Pyrophoric solids

Void Void Void

Void Void Void

Void

Void Void Void

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Self-heating substances and mixtures

· Substances and mixtures, which emit flammable gases in contact with water

· Oxidising liquids

· Oxidising solids

· Organic peroxides

· Corrosive to metals Desensitised explosives

Other safety characteristics Active oxygen

Void

Void

Void Void

Heating may cause a fire.

Void Void

2,6 - 2,7 %

SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No further relevant information available.

SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous selfaccelerating decomposition reaction and, under certain circumstances, explosion or fire can be cause

decomposition at and above the temperature. Contact with incompatible substances can cause

decomposition at or below the SADT.

No decomposition if used and stored according to specifications.

To avoid thermal decomposition do not overheat.

· 10.3 Possibility of hazardous

reactions

· 10.4 Conditions to avoid

· 10.5 Incompatible materials:

Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g.

No further relevant information available. heavy-metal compounds and amines).

Self-accelerating decomposition at SADT.

· 10.6 Hazardous decomposition

products:

Hydrocarbons, carbondioxide and -monoxid.

No hazardous decomposition products if used and stored according to specifications.

· Additional information: Emergency procedures will vary depending on conditions. The customer should have an emergency

response plane in place.

SECTION 11: Toxicological information

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

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

· LD/LC50 values relevant for classification:

94-36-0 dibenzoyl peroxide

LD50 >5.000 mg/kg (rattus) Oral

107-21-1 ethanediol

LD50 4.000 mg/kg (rattus) Oral Dermal LD50 ~10.600 mg/kg (rabbit)

Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation

Respiratory or skin

Causes serious eye irritation.

sensitisation

May cause an allergic skin reaction.

 Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Reproductive toxicity Based on available data, the classification criteria are not met. · STOT-single exposure Based on available data, the classification criteria are not met.

May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral. · STOT-repeated exposure

Aspiration hazard Based on available data, the classification criteria are not met.

· 11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

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SECTION 12: Ecological information

· 12.1 Toxicity

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EC50 / 48h |>10.000 mg/l (daphnia)

EC50 / 96h | 6.500-7.500 mg/l (pseudokirchneriella subcapitata)

NOEL / 48h 10 mg/l

12.2 Persistence and degradability

· Degree of elimination:

· Classification:

94-36-0 dibenzoyl peroxide

Degradation (Readily biodegradable) (OECD 301 D)

107-21-1 ethanediol

Degradation (Readily biodegradable) (OECD 301 C)

12.3 Bioaccumulative potential

· Partition coefficient: nOctanol/water: [Log Kow]

 94-36-0 | dibenzoyl peroxide
 3,2 (20 °C)

 107-21-1 | ethanediol
 -1,36 (25 °C)

12.4 Mobility in soil No further relevant information available.

· 12.5 Results of PBT and vPvB assessment

PBT: The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
 vPvB: The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

· 12.6 Endocrine disrupting

properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects No further relevant information available.

· Remark: Very toxic for fish

· Additional ecological information:

• General notes: Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

Recommendation



After diluting with a suitable desentisation agent to 10 %, the solution must be supplied to a special treatment (e. g. thermal utilization) under observance of all official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Waste disposal key: Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-

number

· Uncleaned packaging:

Recommendation: This material and its container must be disposed of as hazardous waste.

· Recommended cleansing

agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN number or ID number

· ADR, IMDG, IATA UN3107

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· 14.2 UN proper shipping name

· ADR UN3107 ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL

PEROXIDE), ENVIRONMENTALLY HAZARDOUS

ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL PEROXIDE),

MARINE POLLUTANT

ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL PEROXIDE)

· 14.3 Transport hazard class(es)

· ADR

· IMDG

·IATA



· Class 5.2 (P1) Organic peroxides. · Label

5.2

· IMDG



· Class 5.2 Organic peroxides. · Label 52

· IATA



Class 5.2 Organic peroxides.

· Label 5.2

· 14.4 Packing group · ADR, IMDG, IATA Void

· 14.5 Environmental hazards: Product contains environmentally hazardous substances: DIBENZOYL

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PEROXIDE

· Marine pollutant: Symbol (fish and tree)

· Special marking (ADR): Symbol (fish and tree)

· 14.6 Special precautions for user

· Hazard identification number (Kemler code):

· Stowage Category

SW1 Protected from sources of heat. · Stowage Code · Segregation Code SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis.

SG72 See 7.2.6.3.2.

Warning: Organic peroxides.

· 14.7 Maritime transport in bulk according to IMO instruments Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 125 ml Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

Transport category Tunnel restriction code

· RID / GGVSEB: like ADR

· Limited quantities (LQ) 125 ml Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances
- ANNEX I None of the ingredients is listed.

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· Seveso category P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

E1 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier

requirements Qualifying quantity (tonnes) for

the application of upper-tier requirements

REGULATION (EC) No

1907/2006 ANNEX XVII Conditions of restriction: 3

50 t

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases H241 Heating may cause a fire or explosion.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Department issuing SDS: Environment protection / Security of labour

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Tel: +49 2871 9902-0 · Contact: E-mail: mail@pergan.com

· Version number of previous version:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the · Abbreviations and acronyms:

International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation

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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative 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 Skin Sens. 1: Skin sensitisation – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

·* Data compared to the previous version altered.

IE -