

Printing date 02.04.2024 Version: 16 (replaces version 15) Revision: 20.02.2024

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

· 1.1 Product identifier

PEROXAN BP-40 LV · 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.

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 Hazard pictograms

Regulation (EC) No 1272/2008

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



Warning · Signal word

· Hazard-determining

components of labelling:

dibenzoyl peroxide

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

smoking.

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

accelerators (e. g. heavy metal compounds and amines).

P234 Keep only in original packaging. 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. Protect from sunlight.

P410 P411+P235 Store at temperatures not exceeding +30°C. Keep cool.

P420 Store separately.

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

regulations

· Additional information: \* The product is a suspension with low viscosity and can separate easily. Stirring before use is absolutely essential.

· 2.3 Other hazards

Results of PBT and vPvB assessment

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

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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 EINECS: 202-327-6 Index number: 617-008-00-0 Reg-No.: 01-2119511472-50		30-40%
CAS: 68909-20-6 EINECS: 272-697-1 Index number: 014-052-00-7	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products withsilica  STOT RE 2, H373, EUH066 Nanoform: Number-based particle size distribution - d10: 9 - 62 nm - d50: 11 - 100 nm - d90: 14 - 100 nm Surface treated: [(trimethylsilyl)oxy]groups Shape: Spheroidal, Synthetic amorphous silica exists as a Structure: amorphous forms Crystallinity: amorphous nanoform	1-2,5%
CAS: 68439-51-0 Polymer	Alcohols C12-14, Ethoxylated propoxylated Aquatic Chronic 3, H412	1-2,5%

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

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:

4.2 Most important symptoms

and effects, both acute and

delayed 4.3 Indication of any immediate

medical attention and special

treatment needed

After swallowing:

No further relevant information available.

If symptoms persist consult doctor.

No further relevant information available

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from

the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded.

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.

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

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

· 6.3 Methods and material for containment and cleaning up:

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. heavy-

metal 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

+5 .... +30 °C 5.2

quality): Storage class:

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

# **SECTION 8: Exposure controls/personal protection**

### · 8.1 Control parameters

· Ingredients with	limit values that	require monitoring	at the workplace:
ingreatents with	minit values mai	require internitoring	at the workplace.

# 94-36-0 dibenzoyl peroxide

OEL (Ireland) Long-term value: 5 mg/m<sup>3</sup>

Sens

WEL (Great Britain) Long-term value: 5 mg/m³

# 94-36-0 dibenzoyl peroxide

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

#### ·PNECs

#### 94-36-0 dibenzoyl peroxide

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

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

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

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

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.

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



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

Protective gloves

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

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

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· Body protection:

Protective work clothing

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## **SECTION 9: Physical and chemical properties**

	· 9.1 Information on	basic phys	sical and che	mical properties
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· General Information

White · Colour: · Odour: Characteristic · Odour threshold: Not determined. · Melting point/freezing point: Not applicable. Boiling point or initial boiling point and boiling range Not applicable. Not applicable.

Flammability

· Lower and upper explosion limit

· Lower: Not determined. · Upper: Not determined. · Flash point: Not determined. Decomposition temperature: > +45 °C (SADT) Not determined.

· pH

· Viscosity:

Kinematic viscosity

· Dynamic: · Solubility

water:

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

Density and/or relative density

Density:

9.2 Other information Appearance:

· Relative density Vapour density

Suspension

Not determined.

Not determined

Undetermined.

not determined

Not determined.

Not determined.

Not determined.

Not determined.

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

and on safety.

Ignition temperature:

Explosive properties:

· Change in condition

Product is not selfigniting.

Product is not explosive. However, formation of explosive air/vapour

mixtures are possible.

Not determined.

Void

Void

· Evaporation rate

· Information with regard to physical hazard classes · Explosives Void Flammable gases Void · Aerosols Void · Oxidising gases Void · Gases under pressure

Void · Flammable liquids Void Flammable solids Void · Self-reactive substances and mixtures Void · Pyrophoric liquids Void

· Pyrophoric solids Self-heating substances and mixtures

· Substances and mixtures, which emit flammable gases in contact with water Void · Oxidising liquids Void · Oxidising solids Void

Organic peroxides Heating may cause a fire.

· Corrosive to metals Void · Desensitised explosives Void

# **SECTION 10: Stability and reactivity**

· 10.1 Reactivity No further relevant information available.

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· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided:

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

Self-accelerating decomposition at SADT. No further relevant information available.

· 10.5 Incompatible materials:

· 10.4 Conditions to avoid

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

heavy-metal compounds and amines).

· 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

Oral LD50 >5.000 mg/kg (rattus)

Skin corrosion/irritation Based on available data, the 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 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. STOT-repeated exposure Based on available data, the classification criteria are not met. · 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.

# **SECTION 12: Ecological information**

· 12.1 Toxicity

· Aquatic toxicity:

94-36-0 dibenzoyl peroxide

EC50 / 72h 0,0711 mg/l (pseudokirchneriella subcapitata)

LC50 / 96h 0,0602 mg/l (oncorhynchus mykiss)

EC50 / 48h | 110 mg/l (daphnia)

12.2 Persistence and degradability

· Degree of elimination:

Classification:

94-36-0 dibenzoyl peroxide

Degradation (Readily biodegradable) (OECD 301 D)

12.3 Bioaccumulative potential

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

94-36-0 dibenzoyl peroxide

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting

The product does not contain substances with endocrine disrupting properties. properties

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3,2 (20 °C)



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· 12.7 Other adverse effects · 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

· 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.

## **SECTION 14: Transport information**

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN3107
· 14.2 UN proper shipping name · ADR	UN3107 ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL PEROXIDE), ENVIRONMENTALLY HAZARDOUS
· IMDG	ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL PEROXIDE),

MARINE POLLUTANT · IATA ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL PEROXIDE)

· 14.3 Transport hazard class(es)

· ADR





· Class 5.2 (P1) Organic peroxides. · Label

· IMDG





Class 5.2 Organic peroxides. · Label 5.2

· IATA



Class 5.2 Organic peroxides. 5.2

· 14.4 Packing group · ADR, IMDG, IATA

Void

· 14.5 Environmental hazards:

Product contains environmentally hazardous substances: DIBENZOYL **PEROXIDE** 

· Marine pollutant:

Yes

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

· 14.6 Special precautions for user

Warning: Organic peroxides.

· Hazard identification number (Kemler code):

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· Stowage Category

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

SG72 See 7.2.6.3.2.

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

· Transport/Additional information:

· ADR

Limited quantities (LQ)
 Excepted quantities (EQ)
 125 ml
 Code: E0
 Not permitted as Excepted Quantity

· Transport category 2 · Tunnel restriction code D

· RID / GGVSEB: like ADR

**IMDG** 

· 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.

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 50 t Qualifying quantity (tonnes) for

the application of upper-tier requirements 200 t

REGULATION (EC) No

1907/2006 ANNEX XVII Conditions of restriction: 3

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 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.

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.
 H412 Harmful to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

· Department issuing SDS: Environment protection / Security of labour

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· Contact:

# Safety data sheet according to Regulation (EC) No 1907/2006, Article 31



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· Version number of previous

version:

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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

E-mail: mail@pergan.com

LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic

PB1: Pelsistent, Bloaccumulative and Toxic
VPVB: very Persistent and very Bioaccumulative
Org. Perox. B: Organic peroxides – Type B
Org. Perox. E: Organic peroxides – Type E/F
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Actual 1: Hazardous to the aquatic environment - acute aquatic baza

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
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

\* Data compared to the previous version altered.