

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





- **1.1 Product identifier**
- **Trade name:** PEROXAN DC-2
- **CAS Number:** 80-43-3
- **EC number:** 201-279-3
- **Index number:** 617-006-00-X
- **Registration number:** 01-2119541688-27
- **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 from:** Environment protection / Security of labour
Qualified person: E-mail: msds@pergan.com
- **1.4 Emergency telephone number:** - Tel: +49 2871 9902-0

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

Org. Perox. F	H242	Heating may cause a fire.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1B	H317	May cause an allergic skin reaction.
Repr. 1B	H360D	May damage the unborn child.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The substance is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**

			
GHS02	GHS07	GHS08	GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:** bis(a,a-dimethylbenzyl) peroxide
- **Hazard statements**
 - H242 Heating may cause a fire.
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - H317 May cause an allergic skin reaction.
 - H360D May damage the unborn child.
 - H411 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.
 - P410 Protect from sunlight.
 - 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:** Restricted to professional users.

Trade name: **PEROXAN DC-2**

(Contd. of page 1)

2.3 Other hazards**Results of PBT and vPvB assessment**

- **PBT:** This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.
- **vPvB:** This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.

*** SECTION 3: Composition/information on ingredients**

3.1 Substances

- **CAS No. Description** 80-43-3 bis(a,a-dimethylbenzyl) peroxide
- **Identification number(s)**
- **EC number:** 201-279-3
- **Index number:** 617-006-00-X

Dangerous components:

CAS: 80-43-3	bis(a,a-dimethylbenzyl) peroxide	90-100%
EINECS: 201-279-3	Org. Perox. F, H242; Repr. 1B, H360D; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1B, H317	
Index number: 617-006-00-X		
Reg-No.: 01-2119541688-27		

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:

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.

After eye contact:

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

After swallowing:

If symptoms persist consult doctor.

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:** 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, carbon dioxide 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.



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 desensitisation agent to a concentration below 10 % before disposal.
Pick up mechanically, collect in a suitable receptacle and dispose in accordance with government regulations.

(Contd. on page 3)

Trade name: **PEROXAN DC-2**

(Contd. of page 2)

- **6.4 Reference to other sections** In case of large spillage the environmental authority should be informed.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Open and handle receptacle with care.
Prevent formation of dust.
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.
Dust can combine with air to form an explosive mixture.
Substance/product is oxidising when dry.
Product is not explosive. However, formation of explosive air/dust mixtures are 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:** Pay attention to the special requirements of your local authorities for storing dangerous goods.

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.
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.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Protect from contamination.
Store in a cool place.
Storage in a collecting room is required.

- **Recommended storage temperature (To maintain quality):**

max.: +30°C

- **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:**

Not required.

(Contd. on page 4)

Trade name: **PEROXAN DC-2**

(Contd. of page 3)

· DNELs		
80-43-3 bis(a,a-dimethylbenzyl) peroxide		
Oral	DNEL Longterm System	0.4 mg/kg bw/day (General population)
Dermal	DNEL Longterm System	0.8 mg/kg bw/day (Worker)
Inhalative	DNEL Longterm System	0.4 mg/kg bw/day (General population)
		5.6 mg/m ³ (Worker)
		1.4 mg/m ³ (General population)
· PNECs		
80-43-3 bis(a,a-dimethylbenzyl) peroxide		
PNEC Freshwater		0.00234 mg/l (AF 50)
PNEC Freshwater sed		2.24 mg/kg sed dw (-)
PNEC Soil		0.447 mg/kg soil dw (-)
PNEC STP		100 mg/l (AF 10)

· **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:**



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



Filter P2

· **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 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 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 on basic physical and chemical properties**

· **General Information**

· Colour:	Whitish
· Odour:	Characteristic
· Melting point/freezing point:	35 - 45 °C
· Boiling point or initial boiling point and boiling range	Not applicable.

(Contd. on page 5)

Trade name: **PEROXAN DC-2**


(Contd. of page 5)

· LD/LC50 values relevant for classification:	
80-43-3 bis(a,a-dimethylbenzyl) peroxide	
Oral	LD50 >2,000 mg/kg (rattus)
Dermal	LD50 >2,000 mg/kg (rattus)
· Skin corrosion/irritation	Irritating effect.
· Serious eye damage/irritation	Irritating effect.
· 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	May damage the unborn child.
· 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	
Substance is not listed.	

SECTION 12: Ecological information

· 12.1 Toxicity	
· Aquatic toxicity:	
80-43-3 bis(a,a-dimethylbenzyl) peroxide	
EC50 / 72h	>20 mg/l (algae)
EC50	>1,000 mg/l (activa sludge)
· 12.2 Persistence and degradability	
· Degree of elimination:	
· Classification:	
80-43-3 bis(a,a-dimethylbenzyl) peroxide	
Degradation	(Not readily biodegradable) (OECD 301 F)
· 12.3 Bioaccumulative potential	
· Partition coefficient: nOctanol/water: [Log Kow]	
	5,6 (25°C)
· Bioconcentration factor (BCF)	
80-43-3 bis(a,a-dimethylbenzyl) peroxide	
BCF	747
· 12.4 Mobility in soil	No further relevant information available.
· 12.5 Results of PBT and vPvB assessment	
· PBT:	This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.
· vPvB:	This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.
· 12.6 Endocrine disrupting properties	The product does not contain substances with endocrine disrupting properties.
· 12.7 Other adverse effects	
· Remark:	Toxic for fish
· Additional ecological information:	
· General notes:	Toxic for aquatic organisms Also poisonous for fish and plankton in water bodies. Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods	
· Recommendation	 After diluting with a suitable inert solid material to 10 %, the product 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.



(Contd. on page 7)
GB

Trade name: **PEROXAN DC-2**

(Contd. of page 6)

- **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	UN3110
· 14.2 UN proper shipping name · ADR · IMDG · IATA	UN3110 ORGANIC PEROXIDE TYPE F, SOLID (DICUMYL PEROXIDE), ENVIRONMENTALLY HAZARDOUS ORGANIC PEROXIDE TYPE F, SOLID (DICUMYL PEROXIDE), MARINE POLLUTANT ORGANIC PEROXIDE TYPE F, SOLID (DICUMYL PEROXIDE)
· 14.3 Transport hazard class(es) · ADR  · Class · Label	5.2 (P1) Organic peroxides. 5.2
· IMDG  · Class · Label	5.2 Organic peroxides. 5.2
· IATA  · Class · Label	5.2 Organic peroxides. 5.2
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Product contains environmentally hazardous substances: DICUMYL PEROXIDE Yes Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · Stowage Category · Stowage Code · Segregation Code	Warning: Organic peroxides. 539 D SW1 Protected from sources of heat. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information: · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code · RID / GGVSEB:	500 g Code: E0 Not permitted as Excepted Quantity 2 D like ADR
· IMDG · Limited quantities (LQ)	500 g

(Contd. on page 8)
GB

Trade name: **PEROXAN DC-2**

(Contd. of page 7)

· **Exempted quantities (EQ)**

Code: E0

Not permitted as Exempted Quantity

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

· **Regulated explosives precursors**

Substance is not listed.

· **Regulated poisons**

Substance is not listed.

· **Reportable explosives precursors**

Substance is not listed.

· **Reportable poisons**

Substance is not listed.

· **Directive 2012/18/EU**

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

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

Substance is not listed.

· **Regulation (EC) No 273/2004 on drug precursors**

Substance is not listed.

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

Substance is not listed.

· **National regulations:**· **Other regulations, limitations and prohibitive regulations**

- **Please note:** Take care of the respective local regulations.

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**

H242 Heating may cause a fire.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H360D May damage the unborn child.
H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:**

Environment protection / Security of labour

· **Contact:**

Tel: +49 2871 9902-0

E-mail: mail@pergan.com

· **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)
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
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Org. Perox. F: Organic peroxides – Type E/F
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1B: Skin sensitisation – Category 1B

(Contd. on page 9)

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

Printing date 18.06.2024

Version: 10 (replaces version 9)

Revision: 14.12.2023

Trade name: **PEROXAN DC-2**

(Contd. of page 8)

Repr. 1B: Reproductive toxicity – Category 1B

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

*** Data compared to the
previous version altered.**

GB