

Printing date 26.06.2003

Version: 8



Reviewed on 02.10.2002

1 Identification of substance:

- **Product details:**
- **Trade name:** **PEROXAN BP-40 LS**
- **Chemical Indication:** Dibenzoylperoxide as suspension 40 % in plasticizers
- **Application of the substance / the preparation**
For industrial use
Reaction initiator
Hardening agent/Curing agent
- **Manufacturer/Supplier:**
PERGAN GmbH
Hilfsstoffe für industrielle Prozesse
Schlavenhorst 71
D-46395 Bocholt
Phone-number: ++49-2871-9902-0
Fax-number: ++49-2871-9902-50
- **Information department:** Environment protection / Security of labour
- **Emergency information:**
PERGAN GmbH
- Phone-number: ++49-2871-9902-0
- Phone-number: ++49-2871-21030

2 Composition/Data on components:

· **Dangerous components:**

CAS: 94-36-0 EINECS: 202-327-6	Dibenzoyl peroxide	 Xi,  E; R 2-36-43	25-42%
CAS: 131-11-3 EINECS: 205-011-6	Dimethyl phthalate		25-42%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard description:**



Xi Irritant
O Oxidising

· **Information pertaining to particular dangers for man and environment**

- R 7 May cause fire.
- R 36 Irritating to eyes.
- R 43 May cause sensitisation by skin contact.

· **Classification system**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

4 First aid measures

- **General information** Personal protection for the First Aider.
- **After inhalation** Take affected persons into fresh air and keep quiet.
- **After skin contact**
Immediately remove contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide (CO)

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Carbon dioxide, cracked hydrocarbons

- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

* **6 Accidental release measures**

- **Person-related safety precautions:**
Keep away from ignition sources
Remove persons from danger area.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Soak up with absorbant material (e. g. Vermiculit) and dispose of in accordance with government regulations.
- **Additional information:** In case of large spillage the environmental authority should be informed.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Keep away from heat and direct sunlight.
Do not refill residue into storage receptacles.
Restrict the quantity stored at the work place.
Do not smoke.
Avoid contact with skin and eyes.
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).
- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

- **Storage**
- **Requirements to be met by storerooms and receptacles:** Danger of explosion in closed containers.
- **Information about storage in one common storage facility:**
It is allowed to store organic peroxides together only with the following classes of the IMDG-Code:
Class 4.1 - Flammable solids
Class 5.2 - Organic peroxides
Class 9 - Miscellaneous dangerous substances and articles
Storage areas should be selected in accordance with all local laws.
- **Further information about storage conditions:**
Store in a cool place.
Protect from contamination.
Prevent from drying out.
Storage areas should be selected in accordance with all local laws.
- **Recommended storage temperature (To maintain quality):** 5 ... 25° C
- **Storage class 5.2**

* **8 Exposure controls and personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

131-11-3 Dimethyl phthalate

OES	Short-term value: 10 mg/m ³
	Long-term value: 5 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures should be adhered to when handling chemicals.
If a contact with the eyes and skin is possible the specified protective measures has to be used. Use skin protection.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes, clothing.

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- **Breathing equipment:** not required
- **Protection of hands:** Protective gloves.
- **Material of gloves**
PVA gloves
Fluorocarbon rubber (Viton)
Butyl rubber, BR
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.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **As protection from splashes gloves made of the following materials are suitable:**
Neoprene gloves
Nitrile rubber, NBR
- **Eye protection:** Tightly sealed goggles
- **Body protection:**
Apron
Protective suit

*** 9 Physical and chemical properties:**

· General Information	
· Form:	Suspension
· Colour:	white to light yellow
· Odour:	weak
· Change in condition	
· Melting point/Melting range:	undetermined
· Boiling point/Boiling range:	undetermined
· Flash point:	not applicable
· Flammability (solid, gaseous)	not determined
· Ignition temperature:	
· Decomposition temperature:	> + 60°C
· Self igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	not determined
· Upper:	not determined
· Density at 20°C:	1.15 g/cm ³
· Solubility in / Miscibility with	
· Water:	slightly soluble
· Segregation coefficient (n-octanol/water): not determined	

*** 10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**
Rapid decomposition by heating (e. g. direct sunlight or heater).
No decomposition if used according to specifications.
- **Materials to be avoided:**
Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).
- **Dangerous reactions** Self accelerating decomposition above > + 60 °C.
- **Dangerous products of decomposition:**
Hydrocarbons, carbon dioxide and -monoxid.
No hazardous decomposition products if used and stored according to specifications.

*** 11 Toxicological information**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

94-36-0 Dibenzoyl peroxide

Oral	LD50	> 5000 mg/kg (Rat)
Inhalative	LC50/4 h	> 22.4 mg/l (Rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect
- **on the eye:** Irritating effect

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· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information:

· **Ecotoxicological effects:**

· **Acquatic toxicity:**

Type of test	Effective concentration	Method	Assessment
94-36-0 Dibenzoyl peroxide			
EC50	0.83 mg/l	(Algatoxicity)	
	35 mg/l	(Activated sludge)	
EC50/48 h	2.9 mg/l	(Daphnia magna)	
LC50/96 h	2 mg/l	(Poecilia reticulata)	
NOEC/96 h	0.7 mg/l	(Poecilia reticulata)	

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

The product is stable in water. It can be separated from water mechanically. The water can be disposed of in a biological water treatment plant. A degradation activity of activated sludge is not to be expected.

***13 Disposal considerations**

· **Product:**

· **Recommendation** Must be specially treated adhering to official regulations.

European waste catalogue	
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 09 00	oxidising substances
16 09 03	peroxides, for example hydrogen peroxide

· **Uncleaned packagings:**

· **Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

***14 Transport information**

· **Land transport ADR (cross-border):**



· **ADR/GGVS:** 5.2 (P1) Organic peroxides.

· **UN-Number:** 3107

· **Packaging group:** II

· **Label** 5.2

· **Description of goods:** 3107 ORGANIC PEROXIDE TYPE E, LIQUID (Dibenzoyl peroxide)

· **RID/GGVE:** see ADR

· **Maritime transport IMDG:**



· **IMDG Class:** 5.2

· **UN Number:** 3107

· **Label** 5.2

· **Packaging group:** II

· **EMS Number:** F-J,S-R

· **Marine pollutant:** No

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Trade name: **PEROXAN BP-40 LS**

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· **Propper shipping name:** ORGANIC PEROXIDE TYPE E, LIQUID (Dibenzoyl peroxide)

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 5.2
· **UN/ID Number:** 3107
· **Label:** 5.2
· **Packaging group:** II
· **Propper shipping name:** ORGANIC PEROXIDE TYPE E, LIQUID (Dibenzoyl peroxide)

*15 Regulations

· **Markings according to EU guidelines:**

Markings on the basis of internal knowledge

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**



Xi Irritant
O Oxidising

· **Hazard-determining components of labelling:**

Dibenzoyl peroxide

· **Risk phrases:**

7 May cause fire.

36 Irritating to eyes.

43 May cause sensitisation by skin contact.

· **Safety phrases:**

3/7 Keep container tightly closed in a cool place.

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

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

50 Do not mix with peroxide-accelerators or reducing agents.

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

· **National regulations: (german)**

· **Information about limitation of use:** Act on the safety of the working youth (12.04.1976).

· **Disturbance regulations:** Critical quantity values according to the regulations on accidents should be adhered to.

· **Technical instructions (air):**

Class	Share in %
III	77-80

· **Water hazard class:** Water hazard class 1 (Self-assessment) (German regulation): slightly hazardous for water.

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

· **UVV: (german)**

"General regulations" (BGV A1, German)

"Organic peroxide" (BGV B4, German)

"Handling with hazardous substances" (BGV B1, German)

· **BG-notice sheet: (german)**

Data sheets of Berufsgenossenschaft (German):

BGI 752 "Organic peroxides" (German)

BGI 564 "Handling with harmful materials" (German)

BGI 660 "Measures of work protection by handling with dangerous substances" (German)

· **Law for explosives: (german)** not applicable

· **Storage classification/Classification of danger: (german)** Classification of danger II

*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 R-phrases**

2 Risk of explosion by shock, friction, fire or other sources of ignition.

36 Irritating to eyes.

43 May cause sensitisation by skin contact.

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- **Training hints**
 - Training on storage of organic Peroxides.
 - Training on handling of organic Peroxides.
 - Training on disposal of organic peroxides.
- **Department issuing MSDS:** Environment protection / Security of labour
- **Contact:**
 - Environment protection / Security of labour
 - Phone-number: ++49-2871-9902-0
- * **Data compared to the previous version altered.**

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