

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

## PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06  
Date of first issue: 19.04.2018

Print Date: 2023/03/14

CN / EN

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Information  
Trade name : PERKADOX GB-50L

Use of the Substance/Mixture : Specific use(s): Curing agent

Company : Nouryon Functional Chemicals B.V.  
Haaksbergweg 88  
NL 1101 BZ Amsterdam  
Netherlands

Telephone : +31889840367  
Telefax :  
E-mail address : polymer.emeia@nouryon.com  
Emergency telephone number : 24 hours:+31 57 06 79211, US-CHEMTREC:1-800-424-9300,  
CA-CANUTEC:1-613-996-6666, JP: +81 (836) 74 8810, CN:  
化学事故应急咨询电话 : +86 532 8388 9090-:  
Nouryon Emergency Response Centre: +31 570 679211  
National Registration Centre of Chemicals (NRCC): +86 532  
8388 9090

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

<b>Appearance</b>	
Form	powder
Colour	white
Odour	Faint.
<b>GB 6944/12268</b>	
UN number	UN 3106
Proper shipping name	ORGANIC PEROXIDE TYPE D, SOLID (Dibenzoyl peroxide)
Class	5.2
Packing group	Not Assigned
<b>Hazard Summary</b>	
General advice	Move out of dangerous area. Consult a physician.

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

	Show this safety data sheet to the doctor in attendance.
<b>Physical and chemical hazards</b>	Heating may cause a fire.
<b>Health hazards</b>	
Inhalation	Thermal decomposition can lead to release of irritating gases and vapours. Product dust may be irritating to the respiratory system.
Skin	Product dust may be irritating to skin. May cause an allergic skin reaction. May cause skin irritation.
Eyes	Causes serious eye irritation.
Ingestion	May cause irritation of the mucous membranes.
<b>Environmental hazards</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## GHS Classification

Organic peroxides, Type D  
Serious eye damage/eye irritation, Category 2B  
Skin sensitisation, Category 1  
Short-term (acute) aquatic hazard, Category 1  
Long-term (chronic) aquatic hazard, Category 1

## GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H242 Heating may cause a fire.  
H317 May cause an allergic skin reaction.  
H320 Causes eye irritation.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**  
P210 Keep away from heat/ sparks/ open flames/ hot surfaces.  
No smoking.  
P220 Keep/ Store away from clothing/ combustible materials.  
P234 Keep only in original container.  
P235 Keep cool.  
P261 Avoid breathing dust or fume.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

P391 Collect spillage.

## **Storage:**

P410 Protect from sunlight.

P420 Store away from other materials.

## **Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

## **Physical and chemical hazards**

Heating may cause a fire.

## **Health hazards**

- Inhalation : Thermal decomposition can lead to release of irritating gases and vapours.  
Product dust may be irritating to the respiratory system.
- Skin : Product dust may be irritating to skin.  
May cause an allergic skin reaction.  
May cause skin irritation.
- Eyes : Causes serious eye irritation.
- Ingestion : May cause irritation of the mucous membranes.
- Further information : No further data available.

## **Environmental hazards**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## **Other hazards**

No further data available.

Risk of dust explosion.

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

### Hazardous substance

Chemical name	CAS-No.	Classification	Concentration [%]
Ethylene glycol dibenzoate	94-49-5	Aquatic Chronic 2; H411	>= 48 - <= 52
Dibenzoyl peroxide	94-36-0	Org. Perox. B; H241 Eye Dam./Irrit. 2B; H320 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute): 10 M-Factor (Chronic): 10	>= 48 - <= 52

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.
- Inhalation : Remove to fresh air.  
Keep patient warm and at rest.  
Rinse nose and mouth with water.
- Skin contact : Take off contaminated clothing and shoes immediately.  
Wash the skin immediately with soap and water.  
If skin irritation persists, call a physician.
- Eye contact : Rinse with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
Obtain medical attention.
- Ingestion : Clean mouth with water and drink afterwards plenty of water.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.

### Notes to physician

- Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.
- Risks : May cause an allergic skin reaction.  
Causes eye irritation.
- Treatment : Treat symptomatically.

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## 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting / Specific hazards arising from the chemical : CAUTION: reignition may occur.  
Supports combustion.  
Do not use a solid water stream as it may scatter and spread fire.  
Water spray may be ineffective unless used by experienced firefighters.  
Do not allow run-off from fire fighting to enter drains or water courses.  
Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.  
Hazardous decomposition products formed under fire conditions.
- Combustion products : Fire will produce smoke containing hazardous combustion products (see section 10).
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Use water spray to cool unopened containers.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.  
Wear respiratory protection.  
Avoid dust formation.  
Avoid breathing dust.  
Ensure adequate ventilation.  
Remove all sources of ignition.
- Emergency measures on accidental release : Evacuate personnel to safe areas.  
Only qualified personnel equipped with suitable protective equipment may intervene.  
Prevent unauthorised persons entering the zone.
- Environmental precautions : Prevent product from entering drains.  
Discharge into the environment must be avoided.
- Methods for cleaning up / : Keep wetted with water.

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Methods for containment                      Confinement must be avoided.  
Pick up and arrange disposal without creating dust.  
Collect in plastic container for disposal as hazardous waste.  
Never return spills in original containers for re-use.

Reference to other sections                : For disposal considerations see section 13.  
  
For personal protection see section 8.

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## 7. HANDLING AND STORAGE

### Handling

- Advice on safe handling                    : For personal protection see section 8.  
Avoid formation of respirable particles.  
Do not breathe vapours/dust.  
Avoid contact with skin, eyes and clothing.  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
Smoking, eating and drinking should be prohibited in the application area.  
Open drum carefully as content may be under pressure.  
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion        : Use explosion protected equipment.  
Provide appropriate exhaust ventilation at places where dust is formed.  
Keep away from sources of ignition - No smoking.  
No sparking tools should be used.  
Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps).  
Do not cut or weld on or near this container even when empty.  
Keep away from combustible material.
- Temperature class                            : It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded.
- Dust explosion class                        : St3
- Storage**
- Requirements for storage areas and containers        : No smoking.  
Keep in a well-ventilated place.  
Keep in a dry place.  
Electrical installations / working materials must comply with the technological safety standards.  
Store at room temperature in the original container.  
Keep only in original container.  
Store away from other materials.
- Maximum storage temperature:                : 25 °C

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Other data : Do not allow to dry out.  
Maximum storage temperature is for quality only.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Dibenzoyl peroxide	94-36-0	PC-TWA	5 mg/m <sup>3</sup>	CN OEL
		TWA	5 mg/m <sup>3</sup>	ACGIH

### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis	
Benzene	71-43-2	PC-TWA	6 mg/m <sup>3</sup>	CN OEL	
		Further information: G1 - Carcinogenic to humans, Skin			
		PC-STEL	10 mg/m <sup>3</sup>	CN OEL	
		Further information: G1 - Carcinogenic to humans, Skin			
Carbon dioxide	124-38-9	TWA	0.5 ppm	ACGIH	
		STEL	2.5 ppm	ACGIH	
		PC-TWA	9,000 mg/m <sup>3</sup>	CN OEL	
		PC-STEL	18,000 mg/m <sup>3</sup>	CN OEL	
		TWA	5,000 ppm	ACGIH	
		STEL	30,000 ppm	ACGIH	

Components	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Dust		TWA	4 mg/m <sup>3</sup>		CN OEL	Total dust

**Engineering measures** : Explosion proof ventilation recommended.  
Provide appropriate exhaust ventilation at places where dust is formed.  
Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

Respiratory protection : Half mask with a particle filter P2 (EN 143)

Half mask with a particle filter P2 (EN 143)

Eye/face protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Hand protection

Material : Neoprene

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

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Material	:	Nitrile rubber
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Wash contaminated clothing before re-use.

## Environmental exposure controls

General advice	:	Prevent product from entering drains. Discharge into the environment must be avoided.
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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Colour	:	white
Odour	:	Faint.
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point	:	Decomposes before melting.
Boiling point/boiling range	:	Decomposes below the boiling point.
Flash point	:	Above the SADT value
Evaporation rate	:	No data available
Flammability (solid, gas)	:	May form combustible dust concentrations in air.
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	No data available
Bulk density	:	640 kg/m <sup>3</sup> (20 °C)
Solubility(ies)	:	
Water solubility	:	insoluble (20 °C)
Solubility in other solvents	:	No data available



# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	520 °C Method: Auto-ignition of a dust cloud according to EN 80079-20-2 G-G oven
Decomposition temperature	:	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Self-Accelerating decomposition temperature (SADT)	:	55 °C
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	Not classified as oxidising.
Dust deflagration index (Kst)	:	426 m.b_/s
Dust explosion class	:	St3
Minimum ignition energy	:	1.2 mJ
Active Oxygen Content	:	3.3 %
Organic peroxides	:	48 - 52 %

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

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## 10. STABILITY AND REACTIVITY

Conditions to avoid	:	Do not allow to dry out. Confinement must be avoided. Heat, flames and sparks.
Materials to avoid	:	Contact with the following incompatible materials will result in hazardous decomposition: Acids and bases Iron Copper Reducing agents

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

		Heavy metals Rust Do not mix with peroxide accelerators, unless under controlled processing. Use only stainless steel 316, PP, polyethylene or glass-lined equipment. For queries regarding the suitability of other materials please contact the supplier.
Hazardous decomposition products	:	Carbon oxides Benzoic acid Benzene Carbon dioxide
Thermal decomposition	:	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Reactivity	:	Stable under normal conditions.
Chemical stability	:	Stable under recommended storage conditions.
Hazardous reactions	:	Dust may form explosive mixture in air.
Self-Accelerating decomposition temperature (SADT)	:	55 °C

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## 11. TOXICOLOGICAL INFORMATION

### PRODUCT INFORMATION:

#### Hazard Summary

Acute toxicity	:	Not classified based on available information.
Skin corrosion/irritation	:	Not classified based on available information.
Serious eye damage/eye irritation	:	Causes eye irritation.
Respiratory or skin sensitisation	:	Respiratory sensitisation: Not classified based on available information. Skin sensitisation: May cause an allergic skin reaction.
Germ cell mutagenicity	:	Not classified based on available information.
Carcinogenicity	:	Not classified based on available information.
Reproductive toxicity	:	Not classified based on available information.
STOT - single exposure	:	Not classified based on available information.

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

STOT - repeated exposure : Not classified based on available information.

Aspiration hazard : Not classified based on available information.

## Potential Health Effects

Inhalation : Thermal decomposition can lead to release of irritating gases and vapours.  
Product dust may be irritating to the respiratory system.

Skin : Product dust may be irritating to skin.  
May cause an allergic skin reaction.  
May cause skin irritation.

Eyes : Causes serious eye irritation.

Ingestion : May cause irritation of the mucous membranes.

Aggravated Medical Condition : None known.

Symptoms of Overexposure : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

## Toxicology Assessment

Further information : No further data available.

## TOXICOLOGY DATA FOR THE COMPONENTS:

### Toxicology Assessment

#### Component: Ethylene glycol dibenzoate

CMR effects : Carcinogenicity: Based on available data, the classification criteria are not met.  
Mutagenicity: Based on available data, the classification criteria are not met.  
Reproductive toxicity: Based on available data, the classification criteria are not met.

#### Component: Dibenzoyl peroxide

CMR effects : Carcinogenicity: Not carcinogenic.  
Mutagenicity: Not mutagenic.  
Teratogenicity: Did not show teratogenic effects in animal experiments.  
Reproductive toxicity: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

## Test result

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

## **Component: Ethylene glycol dibenzoate**

Acute oral toxicity	: LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 423
Skin irritation	: Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404 Exposure time: 4 h
Eye irritation	: Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405 Exposure time: 1 h
Sensitisation	: Local lymph node assay (LLNA) Species: Mouse Result: Not a skin sensitizer. Method: OECD Test Guideline 429
Repeated dose toxicity	: Species: Rat, male and female NOAEL: 300 mg/kg LOAEL: 1,000 mg/kg Application Route: Oral Exposure time: 92 d Number of exposures: 1 /day Method: OECD Test Guideline 422 GLP: yes
Germ cell mutagenicity Genotoxicity in vitro	: reverse mutation assay Bacteria Result: negative Method: OECD Test Guideline 471  Chromosome aberration test in vitro Human lymphocytes Result: negative Method: OECD Test Guideline 473  In vitro gene mutation study in mammalian cells mouse lymphoma cells Result: negative
Genotoxicity in vivo	: Species: Mouse Method: OECD Test Guideline 474 Dose: 2000 mg/kg total Result: negative
Reproductive toxicity/Fertility	: Test Type: reproductive and developmental toxicity study Species: Rat, male and female Application Route: Oral Dose: 100, 300, 1000 mg/kg bw/day

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Frequency of Treatment: 1 daily  
General Toxicity - Parent: No observed adverse effect level:  
300 mg/kg bw/day  
General Toxicity F1: No observed adverse effect level: 300  
mg/kg bw/day  
Method: OECD Test Guideline 422  
GLP: yes  
Result: Animal testing did not show any effects on fertility.

Reproductive : Species: Rat, male and female  
toxicity/Development/Teratog : Application Route: Oral  
enicity : General Toxicity Maternal: No observed adverse effect level:  
300 mg/kg bw/day  
Developmental Toxicity: No observed adverse effect level:  
300 mg/kg bw/day  
Method: OECD Test Guideline 422  
GLP: yes  
Result: No effects on fertility, No effects on reproduction  
parameters, Some evidence of adverse effects on  
development, based on animal experiments.

## **Component: Dibenzoyl peroxide**

Acute oral toxicity : LD50: > 2,000 mg/kg  
Species: Mouse  
Method: OECD Test Guideline 401

LD50: > 5,000 mg/kg  
Species: Rat

Acute inhalation toxicity : LC50 (Rat, male): > 24.3 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute  
inhalation toxicity

Skin irritation : Species: Rabbit  
Result: No skin irritation  
Method: OECD Test Guideline 404  
Exposure time: 4 h

Eye irritation : Species: Rabbit  
Result: Irritation to eyes, reversing within 7 days

Sensitisation : Species: Guinea pig  
Classification: May cause sensitisation by skin contact.  
Method: OECD Test Guideline 406

Local lymph node assay (LLNA)  
Species: Mouse  
Classification: The product is a skin sensitiser, sub-category  
1A.  
Method: OECD Test Guideline 429

Germ cell mutagenicity

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Genotoxicity in vitro	: In vitro gene mutation study in mammalian cells mouse lymphoma cells Result: negative Method: OECD Test Guideline 476
Genotoxicity in vivo	: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative
Carcinogenicity	: Not classified due to data which are conclusive although insufficient for classification.
Reproductive toxicity/Fertility	: Test Type: reproductive and developmental toxicity study Species: Rat, male and female Application Route: Oral General Toxicity F1: No observed adverse effect level: 500 mg/kg bw/day Method: OECD Test Guideline 422 GLP: yes
Reproductive toxicity/Development/Teratog enicity	: Species: Rat Application Route: Oral General Toxicity Maternal: No observed adverse effect level: 300 mg/kg bw/day Embryo-foetal toxicity: No observed adverse effect level: 300 mg/kg bw/day Method: OECD Test Guideline 414 GLP: yes
Target Organ Systemic Toxicant - Single exposure	: Exposure routes: Ingestion The substance or mixture is not classified as specific target organ toxicant, single exposure.
Target Organ Systemic Toxicant - Repeated exposure	: Exposure routes: Ingestion The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	: No aspiration toxicity classification

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## 12. ECOLOGICAL INFORMATION

### PRODUCT INFORMATION:

#### Ecotoxicology Assessment

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### COMPONENTS:

#### Ecotoxicology Assessment

**Component: Ethylene glycol dibenzoate**

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Long-term (chronic) aquatic hazard : Toxic to aquatic life with long lasting effects.

## Test result

### Component: Ethylene glycol dibenzoate

#### Ecotoxicity effects

- Toxicity to fish : LC50: > 0.434 mg/l  
Exposure time: 96 h  
Species: Danio rerio (zebra fish)  
Test Type: static test  
Method: OECD Test Guideline 203  
No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EC50: > 2.4 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Test Type: static test  
Method: OECD Test Guideline 202  
No toxicity at the limit of solubility
- NOEC: 2.4 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Test Type: static test  
Method: OECD Test Guideline 202  
No toxicity at the limit of solubility
- Toxicity to algae : ErC50: > 0.87 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Test Type: static test  
Method: OECD Test Guideline 201  
No toxicity at the limit of solubility
- NOEC: 0.045 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Test Type: static test  
Method: OECD Test Guideline 201
- Toxicity to bacteria : EC50: > 1,280 mg/l  
Exposure time: 3 h  
Species: activated sludge  
Test Type: static test  
Method: OECD Test Guideline 209
- Toxicity to fish (Chronic toxicity) : NOEC: 0.073 mg/l  
Exposure time: 34 d  
mortality  
Species: Danio rerio (zebra fish)  
Test Type: semi-static test  
Method: OECD Test Guideline 210
- Toxicity to daphnia and other : EC10: 0.79 mg/l

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

aquatic invertebrates  
(Chronic toxicity)                      Exposure time: 21 d  
reproduction rate  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Method: OECD Test Guideline 211

NOEC: 0.65 mg/l  
Exposure time: 21 d  
reproduction rate  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Method: OECD Test Guideline 211

## **Elimination information (persistence and degradability)**

Biodegradability                      : Biodegradation: 89.7 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
GLP: yes  
Readily biodegradable.

## **Component: Dibenzoyl peroxide**

### **Ecotoxicity effects**

Toxicity to fish                      : LC50: 0.06 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)  
Test Type: semi-static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other       : EC50: 0.11 mg/l  
aquatic invertebrates               Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae                      : NOEC: 0.02 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Test Type: static test  
Method: OECD Test Guideline 201

M-Factor (Acute)                      : 10

M-Factor (Chronic)                    : 10

Toxicity to bacteria                   : EC50: 35 mg/l  
Exposure time: 0.5 h  
Species: activated sludge  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

Toxicity to daphnia and other       : EC10: 0.001 mg/l  
aquatic invertebrates               Exposure time: 21 d  
(Chronic toxicity)                    reproduction rate



# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 211

## Elimination information (persistence and degradability)

Biodegradability : Test Type: Ready biodegradability  
Inoculum: activated sludge, non-adapted  
Concentration: 2 mg/l  
Result: Readily biodegradable.  
Testing period: 7 d  
Exposure time: 28 d  
Kinetic:  
7 d: 58 %  
15 d: 63 %  
21 d: 71 %  
28 d: 71 %  
Method: OECD Test Guideline 301D  
GLP: yes

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## 13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Dispose of contents/container in accordance with local regulation.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not burn, or use a cutting torch on, the empty drum.  
Due to the high risk of contamination recycling/recovery is not recommended.  
Follow all warnings even after the container is emptied.

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## 14. TRANSPORT INFORMATION

### International Regulations

#### IATA-DGR

UN/ID No. : UN 3106  
Proper shipping name : Organic peroxide type D, solid (Dibenzoyl peroxide)  
Class : 5.2  
Subsidiary risk : HEAT  
Packing group : Not Assigned  
Labels : 5.2 (HEAT)  
Packing instruction (cargo aircraft) : 570  
Packing instruction : 570

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

(passenger aircraft)  
Environmentally hazardous : yes

## IMDG-Code

UN number : UN 3106  
Proper shipping name : ORGANIC PEROXIDE TYPE D, SOLID  
(Dibenzoyl peroxide)  
Class : 5.2  
Packing group : Not Assigned  
Labels : 5.2  
EmS Code : F-J, S-R  
Marine pollutant : yes  
(Dibenzoyl peroxide)

## Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

## National Regulations

### GB 6944/12268

UN number : UN 3106  
Proper shipping name : ORGANIC PEROXIDE TYPE D, SOLID  
(Dibenzoyl peroxide)  
Class : 5.2  
Packing group : Not Assigned  
Labels : 5.2  
Environmentally hazardous : yes

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## 15. REGULATORY INFORMATION

### Notification status

TCSI : YES. On the inventory, or in compliance with the inventory  
TSCA : YES. All substances listed as active on the TSCA inventory  
AIRC : YES. On the inventory, or in compliance with the inventory  
DSL : NO. This product contains one or several components that are not on the  
Canadian DSL nor NDSL.  
ENCS : YES. On the inventory, or in compliance with the inventory  
ISHL : YES. On the inventory, or in compliance with the inventory  
KECI : NO. Not in compliance with the inventory  
PICCS : NO. Not in compliance with the inventory  
IECSC : NO. Not in compliance with the inventory  
NZIoC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

### National regulatory information

Hazardous Chemicals for Priority Management under  
SAWS : Not applicable

China Severely Restricted Toxic Chemicals for Import  
and Export : Not applicable

Catalogue of Hazardous Chemicals : Not applicable

### Further information

Law on the Prevention and Control of Occupational Diseases

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## 16. OTHER INFORMATION

### Full text of H-Statements

H241	: Heating may cause a fire or explosion.
H317	: May cause an allergic skin reaction.
H320	: Causes eye irritation.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
CN OEL	: Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / STEL	: Short-term exposure limit
CN OEL / TWA	: Time weighted average
CN OEL / PC-TWA	: Permissible concentration - time weighted average
CN OEL / PC-STEEL	: Permissible concentration - short term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

### Further information

# PERKADOX GB-50L

Version 5

Revision Date: 2021/09/06

Print Date: 2023/03/14

CN / EN

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Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This data sheet contains changes from the previous version in section(s):  
Handling and storage

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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