

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version 3.2 Revision Date: 2024/10/25 SDS Number: 600000000300 Date of last issue: 2022/07/05
Date of first issue: 2017/05/05

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : BENOX®C-50

Chemical nature : Organic Peroxide
Solid mixture

Manufacturer or supplier's details

Company : United Initiators (Shanghai) Co., Ltd

Address : Room 501, Bldg. 1, No. 1 Shangda Road
Shanghai, China, 200444

Emergency telephone number : +86 21 61172762

E-mail address : cs-initiators.cn@united-in.com

Recommended use of the chemical and restrictions on use

Recommended use : Hardener

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	: powder
Colour	: white
Odour	: aromatic

Heating may cause a fire. May cause an allergic skin reaction. Causes serious eye irritation. May damage the unborn child. Very toxic to aquatic life with long lasting effects.

GHS Classification

Organic peroxides : Type D

Serious eye damage/eye irritation : Category 2A

Skin sensitisation : Category 1

Reproductive toxicity : Category 1B

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version 3.2 Revision Date: 2024/10/25 SDS Number: 600000000300 Date of last issue: 2022/07/05
Date of first issue: 2017/05/05

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H242 Heating may cause a fire.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H360D May damage the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
P261 Avoid breathing dust.
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/ protective clothing/ 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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Storage:

P405 Store locked up.
P410 Protect from sunlight.
P411 + P235 Store at temperatures not exceeding < 30 °C/ < 86 °F. Keep cool.
P420 Store away from other materials.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version 3.2 Revision Date: 2024/10/25 SDS Number: 600000000300 Date of last issue: 2022/07/05
Date of first issue: 2017/05/05

Disposal:

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

Physical and chemical hazards

Heating may cause a fire.

Health hazards

Causes serious eye irritation. May cause an allergic skin reaction. May damage the unborn child.

Environmental hazards

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
dicyclohexyl phthalate	84-61-7	>= 50 -< 55
dibenzoyl peroxide	94-36-0	>= 45 -< 50

4. FIRST AID MEASURES

- General advice : Take off contaminated clothing and shoes immediately.
Call a physician immediately.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and seek medical advice.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Administer oxygen if breathing is difficult or cyanosis is observed.
If breathed in, move person into fresh air.
If not breathing, give artificial respiration.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If symptoms persist, call a physician.
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Wash contaminated clothing before re-use.
If on skin, rinse well with water.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

- If on clothes, remove clothes.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Call a physician immediately.
Keep respiratory tract clear.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.
Causes serious eye irritation.
May damage the unborn child.
sensitising effects
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- Notes to physician : Treat symptomatically and supportively.
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5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray jet
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Risk of explosion if heated under confinement.
Possible emission of gaseous decomposition products may lead to a dangerous pressure build-up.
Avoid confinement.
Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may auto-ignite.
The product burns violently.
Flash back possible over considerable distance.
Do not allow run-off from fire fighting to enter drains or water courses.
Vapours may form explosive mixtures with air.
The product will float on water and can be reignited on surface water.
Cool closed containers exposed to fire with water spray.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use a water spray to cool fully closed 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.
- Do not use a solid water stream as it may scatter and spread fire.
Remove undamaged containers from fire area if it is safe to do so.
Use water spray to cool unopened containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Follow safe handling advice and personal protective equipment recommendations.
Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Remove all sources of ignition.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contact with incompatible substances can cause decomposition at or below SADT.
Clear spills immediately.
Suppress (knock down) gases/vapours/mists with a water spray jet.
To clean the floor and all objects contaminated by this material, use plenty of water.
Soak up with inert absorbent material.
Isolate waste and do not reuse.
Non-sparking tools should be used.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Prevention of secondary hazards : Never return spills in original containers for re-use. Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

Handling

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
Keep away from heat and sources of ignition.
Use only explosion-proof equipment.
Keep away from open flames, hot surfaces and sources of ignition.
Keep away from combustible material.
Avoid dust formation.
Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Open drum carefully as content may be under pressure.
Avoid formation of respirable particles.
Protect from contamination.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Take precautionary measures against static discharges.
Never return any product to the container from which it was originally removed.
Provide sufficient air exchange and/or exhaust in work rooms.
Avoid confinement.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Smoking, eating and drinking should be prohibited in the application area.
Wash thoroughly after handling.
For personal protection see section 8.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Avoidance of contact : Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents

Storage

- Conditions for safe storage : Store in original container.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version 3.2 Revision Date: 2024/10/25 SDS Number: 600000000300 Date of last issue: 2022/07/05
Date of first issue: 2017/05/05

Keep containers tightly closed in a cool, well-ventilated place.
Store in cool place.
Keep in a well-ventilated place.
Contamination may result in dangerous pressure increases - closed containers may rupture.
Observe label precautions.
Store in accordance with the particular national regulations.
Avoid impurities (e.g. rust, dust, ash), risk of decomposition.
Electrical installations / working materials must comply with the technological safety standards.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Materials to avoid : Keep away from combustible materials.
Keep away from strong acids, bases, heavy metal salts and other reducing substances.

Recommended storage temperature : < 30 °C

Further information on storage stability : Stable under recommended storage conditions.

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 ³	CN OEL
		TWA	5 mg/m ³	ACGIH

Engineering measures : Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Filter type : Filter type P

Eye/face protection : Ensure that eyewash stations and safety showers are close to the workstation location.
Please follow all applicable local/national requirements when selecting protective measures for a specific workplace.
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.
Tightly fitting safety goggles
Please wear suitable protective goggles. Also wear face protection if there is a splash hazard.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.
Wear as appropriate:
Flame retardant antistatic protective clothing.

Hand protection

Material	: butyl-rubber
Break through time	: 480 min
Glove thickness	: 0.47 mm
Material	: Nitrile rubber
Break through time	: 480 min
Glove thickness	: 0.40 mm

Remarks : The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures : Avoid contact with skin, eyes and clothing.
Keep away from food and drink.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: powder
Colour	: white
Odour	: aromatic

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Odour Threshold	:	not determined
pH	:	substance/mixture is non-soluble (in water)
Melting point/ range	:	Decomposition: Decomposes below the melting point.
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Flammability (solid, gas)	:	Organic peroxide
Self-ignition	:	The substance or mixture is not classified as pyrophoric.
Upper explosion limit / Upper flammability limit	:	Upper explosion limit No data available
Lower explosion limit / Lower flammability limit	:	Lower explosion limit No data available
Vapour pressure	:	not determined
Relative vapour density	:	not determined
Relative density	:	not determined
Density	:	not determined
Bulk density	:	ca. 620 kg/m ³
Solubility(ies)	:	
Water solubility	:	insoluble
Solubility in other solvents	:	Solvent: Phthalates Description: soluble
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	not determined
Self-Accelerating decomposition temperature (SADT)	:	60 °C Method: UN-Test H.4 SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.
Viscosity	:	
Viscosity, dynamic	:	Not applicable

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive Avoid dust formation.
Oxidizing properties	:	The substance or mixture is not classified as oxidizing. Organic peroxide
Self-heating substances	:	The substance or mixture is not classified as self heating.
Particle characteristics	:	
Particle size	:	not determined
Particle Size Distribution	:	No data available

10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions. Heating may cause a fire or explosion.
Chemical stability	:	Stable under recommended storage conditions. No decomposition if stored normally.
Possibility of hazardous reactions	:	Dust may form explosive mixture in air.
Conditions to avoid	:	Protect from contamination. Contact with incompatible substances can cause decomposition at or below SADT. Heat, flames and sparks. Avoid confinement.
Incompatible materials	:	Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents
Hazardous decomposition products	:	Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Components:

dicyclohexyl phthalate:

Acute oral toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 423 Assessment: The substance or mixture has no acute oral toxicity
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SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version 3.2 Revision Date: 2024/10/25 SDS Number: 600000000300 Date of last issue: 2022/07/05
Date of first issue: 2017/05/05

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

dibenzoyl peroxide:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 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

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

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

Product:

Remarks : May cause skin irritation in susceptible persons.

Components:

dicyclohexyl phthalate:

Result : No skin irritation

Remarks : May cause skin irritation in susceptible persons.

dibenzoyl peroxide:

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

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : Product dust may be irritating to eyes, skin and respiratory system.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Components:

dicyclohexyl phthalate:

Result : No eye irritation

Remarks : Product dust may be irritating to eyes, skin and respiratory system.

dibenzoyl peroxide:

Species : Rabbit

Result : Irritation to eyes, reversing within 7 days

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified due to lack of data.

Product:

Remarks : Causes sensitisation.

Components:

dicyclohexyl phthalate:

Exposure routes : Skin contact

Species : Mouse

Result : May cause sensitisation by skin contact.

Remarks : Causes sensitisation.

dibenzoyl peroxide:

Exposure routes : Skin contact

Species : Mouse

Method : Local lymph node assay (LLNA)

Result : May cause sensitisation by skin contact.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

dicyclohexyl phthalate:

Genotoxicity in vitro : Result: negative
Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Remarks: No data available

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

dibenzoyl peroxide:

Genotoxicity in vitro : Method: OECD Test Guideline 471
Result: negative

Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Mouse
Result: negative

Carcinogenicity

Not classified due to lack of data.

Components:

dicyclohexyl phthalate:

Remarks : This information is not available.

dibenzoyl peroxide:

Remarks : This information is not available.

Reproductive toxicity

May damage the unborn child.

Components:

dicyclohexyl phthalate:

Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments.
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

dibenzoyl peroxide:

Effects on fertility : Species: Rat, male
Application Route: Oral
General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 422

Species: Rat, female
Application Route: Oral
General Toxicity - Parent: NOAEL: 500 mg/kg body weight
Method: OECD Test Guideline 422

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

STOT - single exposure

Not classified due to lack of data.

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Components:

dibenzoyl peroxide:

Exposure routes : Ingestion
Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Not classified due to lack of data.

Components:

dibenzoyl peroxide:

Exposure routes : Ingestion
Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

dicyclohexyl phthalate:

Species : Rat
NOAEL : 50 mg/kg
Application Route : Ingestion
Exposure time : 90 d
Method : OECD Test Guideline 408

dibenzoyl peroxide:

Species : Rat
NOAEL : 1,000 mg/kg
Application Route : Oral
Exposure time : 28 d
Method : OECD Test Guideline 422

Aspiration toxicity

Not classified due to lack of data.

Components:

dibenzoyl peroxide:

No aspiration toxicity classification

Further information

Product:

Remarks : No data available

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

- Acute aquatic toxicity : Very toxic to aquatic life.
- Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Components:

dicyclohexyl phthalate:

- Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): > 2 mg/l
Exposure time: 96 h
Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : NOEC (Daphnia magna (Water flea)): > 2 mg/l
Exposure time: 48 h
Remarks: No toxicity at the limit of solubility
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 2 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.181 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
- Toxicity to microorganisms : NOEC: > 100 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

Ecotoxicology Assessment

- Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

dibenzoyl peroxide:

- Toxicity to fish : EC50 (Oncorhynchus mykiss (rainbow trout)): 0.06 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.11 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.071 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.02 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): 0.001 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to microorganisms : EC50 (Bacteria): 35 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

dicyclohexyl phthalate:

Biodegradability : Result: Readily biodegradable.

dibenzoyl peroxide:

Biodegradability : Result: Biodegradable
Method: OECD Test Guideline 301D

Bioaccumulative potential

Components:

dicyclohexyl phthalate:

Partition coefficient: n-octanol/water : log Pow: 4.82 (25 °C)

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

dibenzoyl peroxide:

Partition coefficient: n-octanol/water : log Pow: 3.2 (20 °C)

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility. 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.

Contaminated packaging : Dispose of in accordance with local regulations. Clean container with water. Dispose of contents/ container to an approved waste disposal plant. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3106
Proper shipping name : ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXIDE)
Class : 5.2
Packing group : Not assigned by regulation
Labels : 5.2
Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 3106
Proper shipping name : Organic peroxide type D, solid (Dibenzoyl peroxide)

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Class : 5.2
Packing group : Not assigned by regulation
Labels : Organic Peroxides, Keep Away From Heat
Packing instruction (cargo aircraft) : 570
Packing instruction (passenger aircraft) : 570

IMDG-Code

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

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 by regulation
Labels : 5.2
Marine pollutant : yes

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases
Gefahrgruppe nach TRGS 741: II (German regulatory requirements)

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

No. / Code	Chemical name / Category	Threshold quantity
W7.2	Organic peroxides	50 t

Hazardous Chemicals for Priority Management under SAWS : Listed

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
3.2	2024/10/25	600000000300	Date of first issue: 2017/05/05

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

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

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals : Not listed

The components of this product are reported in the following inventories:

TCSI (TW)	: On the inventory, or in compliance with the inventory
TSCA (US)	: All substances listed as active on the TSCA inventory
AiIC (AU)	: On the inventory, or in compliance with the inventory
DSL (CA)	: All components of this product are on the Canadian DSL
ENCS (JP)	: On the inventory, or in compliance with the inventory
ISHL (JP)	: On the inventory, or in compliance with the inventory
PICCS (PH)	: On the inventory, or in compliance with the inventory
IECSC (CN)	: On the inventory, or in compliance with the inventory
TECI (TH)	: On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

Revision Date : 2024/10/25

Further information

Other information : This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
These safety instructions also apply to empty packaging which may still contain product residues.
The hazards on the label also apply to residues in the container.

Sources of key data used to compile the Safety Data : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



BENOX®C-50

Version	Revision Date:	SDS Number:	Date of last issue: 2022/07/05
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Date format : yyyy/mm/dd

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
CN OEL / PC-TWA : Permissible concentration - time weighted average

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 Substances Inventory; TDG - Transportation of Dangerous Goods; TECL - Thailand Existing Chemicals Inventory; 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

Disclaimer

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.

SAFETY DATA SHEET

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BENOX[®]C-50

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