

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

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

1.1 Product identifier

Trade name	:	DTBP
Substance name	:	Di-tert-butyl peroxide
Index-No.	:	617-001-00-2
EC-No.	:	203-733-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	:	polymerisation initiators
------------------------------	---	---------------------------

1.3 Details of the supplier of the safety data sheet

Company	:	United Initiators GmbH Dr.-Gustav-Adolph-Str. 3 82049 Pullach
Telephone	:	+49 / 89 / 74422 – 0
E-mail address of person responsible for the SDS	:	contact@united-in.com

1.4 Emergency telephone number

+49 / 89 / 74422 – 0 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification T.R. SEA No 28848

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Organic peroxides, Type E	H242: Heating may cause a fire.
Germ cell mutagenicity, Category 2	H341: Suspected of causing genetic defects.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling T.R. SEA No 28848

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version 2.0 Revision Date: 23.10.2020 SDS Number: 600000000009 Date of last issue: 16.07.2018
Date of first issue: 16.07.2018

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H242 Heating may cause a fire.
H341 Suspected of causing genetic defects.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/ strong acids, bases, heavy metal salts and other reducing substances /combustible materials.
P234 Keep only in original container.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Di-tert-butyl peroxide
Index-No. : 617-001-00-2
EC-No. : 203-733-6
Chemical nature : Organic Peroxide liquid

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
---------------	-------------------	-----------------------

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Di-tert-butyl peroxide	110-05-4 203-733-6	<= 100
------------------------	-----------------------	--------

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
Call a physician immediately.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
If breathed in, move person into fresh air.
- In case of skin contact : Wash contaminated clothing before re-use.
If on skin, rinse well with water.
If on clothes, remove clothes.
If symptoms persist, call a physician.
- 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 : Keep respiratory tract clear.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Suspected of causing genetic defects.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray jet
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : 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.
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.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Specific extinguishing methods : 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.

Further information : 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.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Follow safe handling advice and personal protective equipment recommendations.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Never return spills in original containers for re-use.
Treat recovered material as described in the section "Disposal considerations".

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

6.2 Environmental precautions

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.

6.3 Methods and material for containment and cleaning up

Methods for 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.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Advice on safe handling : Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Avoid formation of aerosol.
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.
Protect from contamination.

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version 2.0 Revision Date: 23.10.2020 SDS Number: 600000000009 Date of last issue: 16.07.2018
Date of first issue: 16.07.2018

- 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 combustible material.
- Hygiene measures : 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.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : 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. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Store in accordance with the particular national regulations.
- Advice on common storage : Keep away from strong acids, bases, heavy metal salts and other reducing substances.
- Recommended storage temperature : < 40 °C
- Further information on storage stability : No decomposition if stored normally.

7.3 Specific end use(s)

- Specific use(s) : For further information, refer to the product technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) :

Substance name	End Use	Exposure routes	Potential health effects	Value
Di-tert-butyl peroxide	Workers	Inhalation	Long-term systemic effects	20 mg/m ³
	Workers	Skin contact	Long-term systemic effects	3 mg/kg

Predicted No Effect Concentration (PNEC) :

Substance name	Environmental Compartment	Value
Di-tert-butyl peroxide	Fresh water	0,144 mg/l
	Marine water	0,0144 mg/l

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version 2.0 Revision Date: 23.10.2020 SDS Number: 600000000009 Date of last issue: 16.07.2018
Date of first issue: 16.07.2018

	Fresh water sediment	15 mg/kg dry weight (d.w.)
	Marine sediment	1,5 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l
	Soil	2,94 mg/l

8.2 Exposure controls

Engineering measures

Minimize workplace exposure concentrations.

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Please wear suitable protective goggles. Also wear face protection if there is a splash hazard.
Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0,4 mm

Material : butyl-rubber
Break through time : 120 min
Glove thickness : 0,5 mm

Remarks : 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.

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.

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

Filter type : ABEK-filter

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Colour	:	colourless
Odour	:	aromatic
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	< -25 °C
Boiling point/boiling range	:	Decomposition: Decomposes below the boiling point.
Flash point	:	0 °C Method: ISO 3679, closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Upper explosion limit 100 %(V) (45 °C)
Lower explosion limit / Lower flammability limit	:	Lower explosion limit 0,74 %(V)
Vapour pressure	:	35 hPa (20 °C)
Relative vapour density	:	No data available
Density	:	0,79 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	0,171 g/l practically insoluble (20 °C) pH: 8,1
Partition coefficient: n-octanol/water	:	log Pow: 3,2 (22 °C)
Viscosity Viscosity, dynamic	:	0,8 mPa.s (20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing. Organic peroxide

9.2 Other information

Self-Accelerating decomposition temperature (SADT)	:	80 °C Method: UN-Test H.4
--	---	------------------------------

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.

Flammability (liquids) : Highly flammable

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Protect from contamination.
Contact with incompatible substances can cause decomposition at or below SADT.
Heat, flames and sparks.
Avoid confinement.

10.5 Incompatible materials

Materials to avoid : Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents

10.6 Hazardous decomposition products

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 22 mg/l
Exposure time: 4 h

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Test atmosphere: vapour
Method: OECD Test Guideline 436
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Components:

Di-tert-butyl peroxide:

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 22 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 436
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Components:

Di-tert-butyl peroxide:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Product:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation

Components:

Di-tert-butyl peroxide:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Test Type : Buehler Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

Components:

Di-tert-butyl peroxide:

Test Type : Buehler Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Suspected of causing genetic defects.

Product:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Method: OECD Test Guideline 474
Result: positive

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Germ cell mutagenicity- Assessment : Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

Components:

Di-tert-butyl peroxide:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Method: OECD Test Guideline 474
Result: positive

Germ cell mutagenicity- Assessment : Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

Carcinogenicity

Not classified based on available information.

Product:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

Components:

Di-tert-butyl peroxide:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

Reproductive toxicity

Not classified based on available information.

Product:

Effects on foetal development : Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOAEL: 1.000 mg/kg body weight
Method: OECD Test Guideline 414

Species: Rat, male and female
Application Route: Oral
General Toxicity Maternal: NOEL: 1.000 mg/kg body weight
Symptoms: No effects on reproduction parameters, No effects on foetal development
Method: OECD Test Guideline 422

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Components:

Di-tert-butyl peroxide:

Effects on fertility	:	Species: Rat, male and female Application Route: Oral General Toxicity F1: NOEL: 1.000 mg/kg body weight Symptoms: No effects on reproduction parameters, No effects on foetal development Method: OECD Test Guideline 422 Result: No effects on reproduction parameters
Effects on foetal development	:	Species: Rat, female Application Route: Oral General Toxicity Maternal: NOAEL: 1.000 mg/kg body weight Method: OECD Test Guideline 414
	:	Species: Rat, male and female Application Route: Oral General Toxicity Maternal: NOEL: 1.000 mg/kg body weight Symptoms: No effects on reproduction parameters, No effects on foetal development Method: OECD Test Guideline 422

STOT - single exposure

Not classified based on available information.

Product:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

Components:

Di-tert-butyl peroxide:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

STOT - repeated exposure

Not classified based on available information.

Product:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

Components:

Di-tert-butyl peroxide:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

Repeated dose toxicity

Product:

Species : Rat, male and female
NOAEL : 100 mg/kg
LOAEL : 300 mg/kg
Application Route : Oral
Exposure time : 28 d
Method : OECD Test Guideline 422

Species : Rat, male and female
NOAEC : 993 mg/m³
Application Route : Inhalation
Test atmosphere : vapour
Exposure time : 90 d
Method : OECD Test Guideline 413

Components:

Di-tert-butyl peroxide:

Species : Rat, male and female
NOAEL : 100 mg/kg
LOAEL : 300 mg/kg
Application Route : Oral
Exposure time : 28 d
Method : OECD Test Guideline 422

Species : Rat, male and female
NOAEC : 993 mg/m³
Application Route : Inhalation
Test atmosphere : vapour
Exposure time : 90 d
Method : OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

Product:

Not classified due to data which are conclusive although insufficient for classification.

Components:

Di-tert-butyl peroxide:

Not classified due to data which are conclusive although insufficient for classification.

Further information

Product:

Remarks : Solvents may degrease the skin.

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

SECTION 12: Ecological information

12.1 Toxicity

Product:

- Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 1.000 mg/l
Exposure time: 96 h
Remarks: Expert judgement
No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 73,1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 36 mg/l
End point: Growth rate
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 7,2 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
- Toxicity to microorganisms : EC50 (Bacteria): 1.000 mg/l
Exposure time: 0,5 h
Method: OECD Test Guideline 209

Ecotoxicology Assessment

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

Components:

Di-tert-butyl peroxide:

- Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 1.000 mg/l
Exposure time: 96 h
Remarks: Expert judgement
No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 73,1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 36 mg/l
Exposure time: 72 h

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

	Method: OECD Test Guideline 201
Toxicity to microorganisms	: EC50 (Bacteria): 1.000 mg/l Exposure time: 0,5 h Method: OECD Test Guideline 209
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 7,2 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity	: Harmful to aquatic life.
Chronic aquatic toxicity	: Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product:

Biodegradability	: Result: Not readily biodegradable. Method: OECD Test Guideline 301D
------------------	--

Components:

Di-tert-butyl peroxide:

Biodegradability	: Result: Not readily biodegradable. Method: OECD Test Guideline 301D
------------------	--

12.3 Bioaccumulative potential

Components:

Di-tert-butyl peroxide:

Partition coefficient: n-octanol/water	: log Pow: 3,2 (22 °C)
--	------------------------

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..
------------	---

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

12.6 Other adverse effects

Product:

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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 wastes in an approved waste disposal facility.

Contaminated packaging : 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.
Dispose of in accordance with local regulations.

SECTION 14: Transport information

14.1 UN number

ADR : UN 3107
RID : UN 3107
IMDG : UN 3107
IATA : UN 3107

14.2 UN proper shipping name

ADR : ORGANIC PEROXIDE TYPE E, LIQUID (DI-tert-BUTYL PEROXIDE)
RID : ORGANIC PEROXIDE TYPE E, LIQUID (DI-tert-BUTYL PEROXIDE)
IMDG : ORGANIC PEROXIDE TYPE E, LIQUID (DI-tert-BUTYL PEROXIDE)
IATA : Organic peroxide type E, liquid (Di-tert-Butyl peroxide)

14.3 Transport hazard class(es)

ADR : 5.2
RID : 5.2

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	6000000000009	Date of first issue: 16.07.2018

IMDG : 5.2

IATA : 5.2

14.4 Packing group

ADR

Packing group : Not assigned by regulation
Classification Code : P1
Labels : 5.2
Tunnel restriction code : (D)

RID

Packing group : Not assigned by regulation
Classification Code : P1
Hazard Identification Number : 539
Labels : 5.2

IMDG

Packing group : Not assigned by regulation
Labels : 5.2
EmS Code : F-J, S-R

IATA (Cargo)

Packing instruction (cargo aircraft) : 570
Packing group : Not assigned by regulation
Labels : Division 5.2 - Organic peroxides, Handling Label - Keep Away From Heat

IATA (Passenger)

Packing instruction (passenger aircraft) : 570
Packing group : Not assigned by regulation
Labels : Division 5.2 - Organic peroxides, Handling Label - Keep Away From Heat

14.5 Environmental hazards

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

KKDIK (30105 (Bis)) - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex 17) : Conditions of restriction for the following entries should be considered: Number on list 40, 3

Other regulations:

Gefahrgruppe nach § 3 BGV B4: Ib (German regulatory requirements)

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".
Regulation on Classification, Labelling and Packaging of Substances and Mixtures. Dated 11 December 2013, Numbered 28848 (Bis) Ministry of Environment and Forestry.

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

AICS (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

KECI (KR) : 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

NZIoC (NZ) : On the inventory, or in compliance with the inventory

SECTION 16: Other information

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

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

may still contain product residues.

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance 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

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

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



DTBP

Version	Revision Date:	SDS Number:	Date of last issue: 16.07.2018
2.0	23.10.2020	600000000009	Date of first issue: 16.07.2018

TR / EN