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

1.1 Product identifier

Trade name : BENOX®A-75

REACH Registration Number : 01-2119511472-50-0006

Substance name : Dibenzoyl peroxide

Index-No. : 617-008-00-0

EC-No. : 202-327-6

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

Use of the Sub- : Hardener, polymerisation initiators

stance/Mixture

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

0800 000 7801 (toll-free, access from Germany only) +49 89 220 61012

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

### Classification (REGULATION (EC) No 1272/2008)

Organic peroxides, Type C H242: Heating may cause a fire.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Short-term (acute) aquatic hazard, Cate-

gory 1

H400: Very toxic to aquatic life.

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Long-term (chronic) aquatic hazard, Category 1

H410: Very toxic to aquatic life with long lasting

effects.

#### 2.2 Label elements

# Labelling (REGULATION (EC) No 1272/2008)

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.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P234 Keep only in original packaging. P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection/ hearing protection.

Response:

P370 + P378 In case of fire: Use water spray, alcohol-

resistant foam, dry chemical or carbon dioxide to

extinguish.

P391 Collect spillage.

#### 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

#### 3.1 Substances

Substance name : Dibenzoyl peroxide

Index-No. : 617-008-00-0

EC-No. : 202-327-6

Chemical nature : Organic Peroxide

# Components

Chemical name	CAS-No.	Concentration (%	M-Factor, SCL, ATE
	EC-No.	w/w)	
dibenzoyl peroxide	94-36-0 202-327-6	>= 70 - <= 77	M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10

#### **SECTION 4: First aid measures**

# 4.1 Description of 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.

Protection of first-aiders : First Aid responders should pay attention to self-protection

and use the recommended protective clothing

If inhaled : Administer oxygen if breathing is difficult or cyanosis is ob-

served.

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

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and shoes.

Wash contaminated clothing before re-use.

If on skin, rinse well with water. 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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : sensitising effects

Risks : May cause an allergic skin reaction.

Causes serious eye irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

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

Unsuitable extinguishing

media

: High volume water jet

### 5.2 Special hazards arising from the substance or mixture

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

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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.

#### 5.3 Advice for firefighters

Special protective equipment :

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary. Use personal protective equipment.

Specific extinguishing meth-

ods

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 : Use extinguishing measures that are appropriate to local cir-

cumstances 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.

# **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Follow safe handling advice and personal protective equip-

ment recommendations.

Use personal protective equipment.

Avoid dust formation. Avoid breathing dust.

Remove all sources of ignition.

Never return spills in original containers for re-use.

Treat recovered material as described in the section "Disposal

considerations".

### 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.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contact with incompatible substances can cause decomposi-

tion 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 materi-

al, 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 deter-

mine which regulations are applicable.

#### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

# **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 : 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 ap-

plication 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.

Advice on protection against

fire and explosion

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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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.

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.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in original container. 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.

Advice on common storage : Keep away from combustible materials.

Keep away from strong acids, bases, heavy metal salts and

other reducing substances.

Storage class (TRGS 510) : 5.2

Recommended storage tem: :

perature

5 - 30 °C

Further information on stor-

age stability

: Stable under recommended storage conditions.

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

# **Occupational Exposure Limits**

Allgemeiner Staubgrenzwert 10 mg/m3

Peak-limit: excursion factor (category): 2;(II)

Value type (Form of exposure): AGW (Inhalable fraction)

Basis: DE TRGS 900

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Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

1,25 mg/m3

Peak-limit: excursion factor (category): 2;(II)

Value type (Form of exposure): AGW (Alveolate fraction)

Basis: DE TRGS 900

Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn

child

Dust Basis: DE DFG MAK

0,3 mg/m3

Peak-limit: excursion factor (category): 8; II

Value type (Form of exposure): MAK (measured as the alveolate

fraction)

Basis: DE DFG MAK

Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is ob-

served

4 mg/m3

Peak-limit: excursion factor (category): 8; II

Value type (Form of exposure): MAK (inhalable fraction)

Basis: DE DFG MAK

Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is ob-

served

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
dibenzoyl peroxide	94-36-0	AGW (Inhalable	5 mg/m3	DE TRGS
		fraction)		900
	Peak-limit: excursion factor (category): 1;(I)			
		MAK (measured	1 mg/m3	DE DFG MAK
		as the alveolate		
		fraction)		
	Peak-limit: excursion factor (category): 2; I			
	Further information: Damage to the embryo or foetus is unlikely when the			
	MAK value or the BAT value is observed			

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	MAK (inhalable fraction)	4 mg/m3	DE DFG MAK
Peak-limit: excursion factor (category): 2; I			
Further information: Damage to the embryo or foetus is unlikely when the			
MAK value or the BAT value is observed			

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
dibenzoyl peroxide	Workers	Inhalation	Long-term systemic effects	39 mg/m3
	Workers	Skin contact	Long-term systemic effects	34,3 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	3,5 mg/m3
	Consumers	Skin contact	Long-term systemic effects	17 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	2 mg/kg bw/day

# Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
dibenzoyl peroxide	Fresh water	0,02 μg/l
	Marine water	0,002 μg/l
	Sewage treatment plant	0,35 mg/l
	Fresh water sediment	0,013 mg/kg dry weight (d.w.)
	Marine sediment	0,001 mg/kg dry weight (d.w.)
	Soil	0,003 mg/kg dry weight (d.w.)

#### 8.2 Exposure controls

#### **Engineering measures**

Minimize workplace exposure concentrations.

# Personal protective equipment

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 pro-

tection if there is a splash hazard.

Equipment should conform to EN 166

Hand protection

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Material : butyl-rubber
Break through time : 480 min
Glove thickness : 0,47 mm

Directive : Equipment should conform to EN 374

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0,40 mm

Directive : Equipment should conform to EN 374

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.

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, dis-

posable suits) to avoid exposed skin surfaces.

Wear as appropriate:

Flame retardant antistatic protective clothing.

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

approved filter.

Respirator with combination filter for vapour/particulate (EN

141)

Filter type : Filter type P

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state : powder

Colour : white

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Odour : aromatic

Odour Threshold : No data available

Melting point/ range : Decomposition: Decomposes below the melting point.

Boiling point/boiling range : Not applicable

Flammability : Organic peroxide

Upper explosion limit / Upper

flammability limit

Upper explosion limit

No data available

Lower explosion limit / Lower :

flammability limit

Lower explosion limit No data available

Flash point : Not applicable

Auto-ignition temperature : not determined

Self-Accelerating decomposi-

tion temperature (SADT)

70 °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.

pH : substance/mixture is non-soluble (in water)

Viscosity

Viscosity, dynamic : Not applicable

Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : 0,0004 g/l insoluble

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Solubility in other solvents : Solvent: Phthalates

soluble

Partition coefficient: n-

octanol/water

log Pow: 3,2 (20 °C)

Dispersion Stability : No data available

Vapour pressure : No data available

Relative density : not determined

Density : not determined

Bulk density : 590 kg/m3 (20 °C)

Relative vapour density : No data available

Particle characteristics

Particle size : not determined

Particle Size Distribution : No data available

Dustiness : Avoid dust formation.

Shape : not determined

Crystallinity : Not applicable

Surface treatment

/Coatings

Not applicable

9.2 Other information

Explosives : Risk of explosion by shock, friction, fire or other sources of

ignition.

Avoid dust formation.

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Oxidizing properties : The substance or mixture is not classified as oxidizing.

Organic peroxide

Self-ignition : The substance or mixture is not classified as pyrophoric.

Self-heating substances : The substance or mixture is not classified as self heating.

Substances and mixtures, which in contact with water, emit flammable gases

The substance or mixture does not emit flammable gases in

contact with water.

Desensitised explosives : Not applicable

Impact sensitivity : Sensitive to impact and/ or friction.

Evaporation rate : No data available

### **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

Stable under recommended storage conditions.

Heating may cause a fire or explosion.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

No decomposition if stored normally.

# 10.3 Possibility of hazardous reactions

Hazardous reactions : Dust may form explosive mixture in air.

#### 10.4 Conditions to avoid

Conditions to avoid : Protect from contamination.

Contact with incompatible substances can cause decomposi-

tion at or below SADT. Heat, flames and sparks. Avoid confinement.

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#### 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 hazard classes as defined in Regulation (EC) No 1272/2008

#### **Acute toxicity**

Not classified based on available information.

Not classified due to lack of data.

#### **Product:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rat): 24,3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Acute dermal toxicity : Remarks: No data available

#### **Components:**

# 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 tox-

icity

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 inhala-

tion toxicity

Acute dermal toxicity : Remarks: No data available

#### Skin corrosion/irritation

Not classified based on available information.

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

**Product:** 

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Remarks : May cause skin irritation in susceptible persons.

Remarks : May cause skin irritation in susceptible persons.

**Components:** 

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. Causes serious eye irritation.

**Product:** 

Species : Rabbit

Method : OECD Test Guideline 405

Result : Irritation to eyes, reversing within 7 days

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

system.

**Components:** 

dibenzoyl peroxide:

Species : Rabbit

Result : Irritation to eyes, reversing within 7 days

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified due to lack of data.

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**Product:** 

Exposure routes : Skin contact Species : Mouse

Method : Local lymph node assay (LLNA)

Result : Causes sensitisation.

Remarks : Causes sensitisation.

Remarks : Causes sensitisation.

**Components:** 

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 based on available information.

Not classified due to lack of data.

**Product:** 

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

**Components:** 

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 based on available information.

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Not classified due to lack of data.

**Product:** 

Remarks : This information is not available.

**Components:** 

dibenzoyl peroxide:

Remarks : This information is not available.

Reproductive toxicity

Not classified based on available information.

Not classified due to lack of data.

**Product:** 

Reproductive toxicity - As-

sessment

No evidence of adverse effects on sexual function and fertility,

or on development, based on animal experiments.

Components:

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 - As-

sessment

No evidence of adverse effects on sexual function and fertility,

or on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

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

Product:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

**Components:** 

dibenzoyl peroxide:

Exposure routes : Ingestion

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

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### STOT - repeated exposure

Not classified based on available information.

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

**Product:** 

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

**Components:** 

dibenzoyl peroxide:

Exposure routes : Ingestion

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

**Product:** 

Species : Rat

NOAEL : 1.000 mg/kg

Application Route : Oral Exposure time : 28 d

Method : OECD Test Guideline 422

**Components:** 

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 based on available information.

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

Product:

No aspiration toxicity classification

**Components:** 

dibenzoyl peroxide:

No aspiration toxicity classification

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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#### 11.2 Information on other hazards

### **Endocrine disrupting properties**

**Product:** 

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

**Further information** 

**Product:** 

Remarks : No data available

# **SECTION 12: Ecological information**

# 12.1 Toxicity

**Product:** 

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

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

ma/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

EC10: 0,001 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: semi-static test

Method: OECD Test Guideline 211

Toxicity to microorganisms : EC50 (Bacteria): 35 mg/l

Exposure time: 30 min

Method: OECD Test Guideline 209

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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**Ecotoxicology Assessment** 

Acute aquatic toxicity : Very toxic to aquatic life.

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

**Components:** 

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

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 tox-

icity)

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Toxicity to microorganisms : EC50 (Bacteria): 35 mg/l

Exposure time: 30 min

Method: OECD Test Guideline 209

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

EC10: 0,001 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: semi-static test

Method: OECD Test Guideline 211

M-Factor (Chronic aquatic

toxicity)

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**Ecotoxicology Assessment** 

Acute aquatic toxicity : Very toxic to aquatic life.

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

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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# 12.2 Persistence and degradability

#### **Components:**

dibenzoyl peroxide:

Biodegradability : Result: Biodegradable

Method: OECD Test Guideline 301D

### 12.3 Bioaccumulative potential

#### Components:

dibenzoyl peroxide:

Partition coefficient: n-

octanol/water

: log Pow: 3,2 (20 °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.

#### 12.6 Endocrine disrupting properties

# **Product:**

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

### 12.7 Other adverse effects

### **Product:**

Additional ecological infor-

mation

: An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : Dispose of wastes in an approved waste disposal facility.

The product should not be allowed to enter drains, water

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

According to the European Waste Catalogue, Waste Codes

are not product specific, but application specific.

Waste codes should be assigned by the user, preferably in

discussion with the waste disposal authorities.

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.

### **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADN : UN 3104
ADR : UN 3104
RID : UN 3104
IMDG : UN 3104
IATA : UN 3104

14.2 UN proper shipping name

**ADN** : ORGANIC PEROXIDE TYPE C, SOLID

(DIBENZOYL PEROXIDE)

ADR : ORGANIC PEROXIDE TYPE C, SOLID

(DIBENZOYL PEROXIDE)

RID : ORGANIC PEROXIDE TYPE C, SOLID

(DIBENZOYL PEROXIDE)

**IMDG** : ORGANIC PEROXIDE TYPE C, SOLID

(DIBENZOYL PEROXIDE)

IATA : Organic peroxide type C, solid

(Dibenzoyl peroxide)

14.3 Transport hazard class(es)

Class Subsidiary risks

**ADN** : 5.2 **ADR** : 5.2

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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**RID** : 5.2 **IMDG** : 5.2

IATA : 5.2 HEAT

14.4 Packing group

**ADN** 

Packing group : Not assigned by regulation

Classification Code : P1 Labels : 5.2

**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 : 570

aircraft)

Packing group : Not assigned by regulation

Labels : Organic Peroxides, Keep Away From Heat

IATA (Passenger)

Packing instruction (passen- : 570

ger aircraft)

Packing group : Not assigned by regulation

Labels : Organic Peroxides, Keep Away From Heat

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

**ADR** 

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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#### 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 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

# **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) Conditions of restriction for the following entries should be considered: Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Not applicable

Regulation (EC) on substances that deplete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import

Not applicable

REACH - List of substances subject to authorisation

Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving

of dangerous chemicals

dangerous substances.

(Annex XIV)

SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC

PEROXIDES

E1 ENVIRONMENTAL HAZARDS

P<sub>6</sub>b

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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Water hazard class (Germa- : WGK 2 obviously hazardous to water

ny) Code Number: 1.100

#### Other regulations:

Gefahrgruppe nach TRGS 741: II, S+ (German regulatory requirements)

Produkt unterliegt dem Sprengstoffgesetz (SprengG; Stoffgruppe C). (German regulatory requirement)

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

#### 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

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

For further information see eSDS.

### **SECTION 16: Other information**

#### Full text of other abbreviations

DE DFG MAK : Germany. MAK BAT Annex IIa

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.

DE DFG MAK / MAK : MAK value

DE TRGS 900 / AGW : Time Weighted Average

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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

# **Further information**

Other information : This safety datasheet only contains information relating to

safety and does not replace any product information or prod-

uct 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 con-

tainer.

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 Agen-

cy, http://echa.europa.eu/

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

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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.

DE / EN