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

1.1 Product identifier

Trade name : BENOX®L-40LV-EU

Unique Formula Identifier

(UFI)

: XCQ8-0099-A00S-VARC

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

Use of the Sub-: Curing chemical

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

+44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Organic peroxides, Type E 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.

Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: 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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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms







Signal word : Warning

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.

Hazardous components which must be listed on the label:

dibenzoyl peroxide (CAS-No. 94-36-0)

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Chemical nature : Organic Peroxide

Liquid mixture

Components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|---|--|--|--------------------------|
| dibenzoyl peroxide | 94-36-0 202-327-6 617-008-00-0 01-2119511472-50 | Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 ———— M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10 | >= 35 - < 40 |
| Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis prod- ucts with silica | 68909-20-6 272-697-1 014-052-00-7 | STOT RE 2; H373 (Lungs) EUH066 | >= 1 - < 5 |

For explanation of abbreviations see section 16.

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.

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



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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. 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.

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



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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.

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.

Beware of vapours accumulating to form explosive concentra-

tions. Vapours can accumulate in low areas.

Use personal protective equipment. 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.

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



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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 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.

Protect from contamination.

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 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.

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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.

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.

Recommended storage tem-

perature

0 - 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

| Components | CAS-No. | Value type (Form | Control parameters | Basis |
|--------------------|---|-----------------------|--------------------|--------|
| | | of exposure) | | |
| dibenzoyl peroxide | 94-36-0 | OELV - 8 hrs (TWA) | 5 mg/m3 | IE OEL |
| | Further information: Chemical agents which following exposure may cause | | | |

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



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| | sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis | | | |
|---------------|--|--|----------|--------|
| Zinc stearate | 557-05-1 | OELV - 8 hrs (TWA) (Respira- ble dust) | 4 mg/m3 | IE OEL |
| | | OELV - 8 hrs (TWA) (inhalable dust) | 10 mg/m3 | IE OEL |
| | | OELV - 15 min (STEL) (inhalable dust) | 20 mg/m3 | IE OEL |

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 |
| Zinc stearate | Workers | Inhalation | Long-term systemic effects | 0.025683 mg/m3 |
| | Workers | Skin contact | Long-term systemic effects | 0.022529 mg/m3 |

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.) |
| Zinc stearate | Fresh water | 0.00826 mg/l |
| | Marine water | 0.00826 mg/l |
| | Intermittent use/release | 0.00413 mg/l |
| | Sewage treatment plant | 0.052 mg/l |
| | Fresh water sediment | 13.24328 mg/kg |
| | | dry weight (d.w.) |
| | Marine sediment | 13.24328 mg/kg |
| | | dry weight (d.w.) |
| | Soil | 6.26389 mg/kg |
| | | dry weight (d.w.) |

8.2 Exposure controls

Engineering measures

Minimize workplace exposure concentrations.

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



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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

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

Material : butyl-rubber
Break through time : 480 min
Glove thickness : 0.47 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)

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



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Filter type : ABEK-filter

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 : Emulsion

Colour : white

Odour : characteristic

Odour Threshold : not determined

Melting point/ range : not determined

Boiling point/boiling range : Decomposition: Decomposes below the boiling point.

Flammability : does not ignite

Upper explosion limit / Upper

flammability limit

Upper explosion limit

not determined

Lower explosion limit / Lower :

flammability limit

Lower explosion limit

not determined

Flash point : Not applicable

Auto-ignition temperature : not determined

Self-Accelerating decomposi-

tion temperature (SADT)

>= 50 °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.

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



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pH : Not applicable substance/mixture is non-soluble (in water)

Viscosity

Viscosity, dynamic : ca. 1,000 mPa.s (25 °C)

Viscosity, kinematic : not determined

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : Solvent: organic solvents

soluble

Partition coefficient: n-

octanol/water

Not applicable

Dispersion Stability : No data available

Vapour pressure : not determined

Relative density : not determined

Density : 1.150 g/cm3 (25 °C)

Bulk density : Not applicable

Relative vapour density : not determined

Particle characteristics

Particle size : Not applicable

Dustiness : Not applicable

9.2 Other information

Explosives : Not explosive

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

Organic peroxide

Flammability (liquids) : 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

Evaporation rate : No data available

Refractive index : 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.

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 decomposi-

tion at or below SADT.

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



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

Acute toxicity

Not classified due to lack of data.

Components:

dibenzoyl peroxide:

Acute oral toxicity : LD50 (Rat, male): > 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

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 423

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Not classified due to lack of data.

Product:

Remarks : May cause skin irritation in susceptible persons.

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



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Components:

dibenzoyl peroxide:

Species : Rabbit Exposure time : 4 h

Method : OECD Test Guideline 404

Result : No skin irritation

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : Vapours may cause irritation to the eyes, respiratory system

and the skin.

Components:

dibenzoyl peroxide:

Species : Rabbit

Result : Irritation to eyes, reversing within 7 days

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

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:

dibenzoyl peroxide:

Test Type : Local lymph node assay (LLNA)

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Exposure routes : Skin contact Species : Mouse

Method : OECD Test Guideline 429

Result : May cause sensitisation by skin contact.

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

dibenzoyl peroxide:

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells Method: OECD Test Guideline 476

Result: negative

GLP: yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal Method: OECD Test Guideline 474

Result: negative

GLP: yes

Germ cell mutagenicity- As-

sessment

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

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: No information available.

Result: negative

Carcinogenicity

Not classified due to lack of data.

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



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Components:

dibenzoyl peroxide:

Remarks : Not classified due to data which are conclusive although insuf-

ficient for classification.

Carcinogenicity - Assess-

ment

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

Reproductive toxicity

Not classified due to lack of data.

Components:

dibenzoyl peroxide:

Effects on fertility : Test Type: reproductive and developmental toxicity study

Species: Rat, male and female

Application Route: Oral

General Toxicity - Parent: NOAEL: 500 mg/kg bw/day

Method: OECD Test Guideline 422

Effects on foetal develop-

ment

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 300 mg/kg bw/day Embryo-foetal toxicity: NOAEL: 300 mg/kg bw/day

Method: OECD Test Guideline 414

GLP: yes

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 due to lack of data.

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.

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



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Repeated dose toxicity

Components:

dibenzoyl peroxide:

Species : Rat, male and female NOAEL : 1000 mg/kg bw/day

Application Route : Oral Exposure time : 90 d

Method : OECD Test Guideline 408

Aspiration toxicity

Not classified due to lack of data.

Components:

dibenzoyl peroxide:

No aspiration toxicity classification

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:

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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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

End point: Growth rate 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)

10

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

Exposure time: 30 min

Test Type: Respiration inhibition Method: OECD Test Guideline 209

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

EC10: 0.001 mg/l

End point: reproduction rate

Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: semi-static test

Method: OECD Test Guideline 211

M-Factor (Chronic aquatic

toxicity)

: 10

Toxicity to soil dwelling or-

ganisms

LC50: >

1000 milligram per kilogram

Exposure time: 14 d

Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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



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

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Toxicity to fish Remarks: No data available

Toxicity to daphnia and other : Remarks: No data available

aquatic invertebrates

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms

Remarks: No data available

12.2 Persistence and degradability

Components:

dibenzoyl peroxide:

Biodegradability Result: Readily biodegradable.

> Biodegradation: 71 % Exposure time: 28 d

Method: OECD Test Guideline 301D

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

: Remarks: No data available Biodegradability

12.3 Bioaccumulative potential

Components:

dibenzoyl peroxide:

Partition coefficient: nlog Pow: 3.2 (20 °C)

octanol/water Method: OECD Test Guideline 117

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica:

Partition coefficient: n-

octanol/water

: Remarks: Not applicable

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

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



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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

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

ADR : UN 3107

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



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 RID
 : UN 3107

 IMDG
 : UN 3107

 IATA
 : UN 3107

14.2 UN proper shipping name

ADR : ORGANIC PEROXIDE TYPE E, LIQUID

(DIBENZOYL PEROXIDE)

RID : ORGANIC PEROXIDE TYPE E, LIQUID

(DIBENZOYL PEROXIDE)

IMDG : ORGANIC PEROXIDE TYPE E, LIQUID

(DIBENZOYL PEROXIDE)

IATA : Organic peroxide type E, liquid

(Dibenzoyl peroxide)

14.3 Transport hazard class(es)

Class Subsidiary risks

ADR : 5.2 RID : 5.2 IMDG : 5.2

IATA : 5.2 HEAT

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 : 570

aircraft)

Packing group : Not assigned by regulation

Labels : Organic Peroxides, Keep Away From Heat

IATA (Passenger)

Packing instruction (passen- : 570

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



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ger aircraft)

Packing group : Not assigned by regulation

Labels : Organic Peroxides, Keep Away From Heat

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

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 3

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 pollu-

tants (recast)

Not applicable

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



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

of dangerous chemicals

REACH - List of substances subject to authorisation

(Annex XIV)

: Not applicable

: Not applicable

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

dangerous substances.

P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC

PEROXIDES

E1 ENVIRONMENTAL HAZARDS

Other regulations:

Gefahrgruppe nach TRGS 741: II (German regulatory requirements)

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

IECSC (CN) : On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H241 : Heating may cause a fire or explosion. H317 : May cause an allergic skin reaction.

H319 : Causes serious eye irritation.

H373 : May cause damage to organs through prolonged or repeated

exposure if inhaled.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

EUH066 : Repeated exposure may cause skin dryness or cracking.

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



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Full text of other abbreviations

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Irrit. : Eye irritation
Org. Perox. : Organic peroxides
Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure

IE OEL : Ireland. List of Chemical Agents and Carcinogens with Occu-

pational Exposure Limit Values - Code of Practice, Schedule 1

and 2

IE OEL / OELV - 8 hrs (TWA) : Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min : Occupational exposure limit value (15-minute reference peri-

(STEL) od)

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-

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



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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

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

Classification of the mixture: Classification procedure:

| Org. Perox. E | H242 | Based on product data or assessment |
|-------------------|------|-------------------------------------|
| Eye Irrit. 2 | H319 | Calculation method |
| Skin Sens. 1 | H317 | Calculation method |
| Aquatic Acute 1 | H400 | Based on product data or assessment |
| Aquatic Chronic 1 | H410 | Based on product data or assessment |

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

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