

SAFETY DATA SHEET

BENOX[®]L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : BENOX[®]L-40LV

Recommended use of the chemical and restrictions on use

Recommended use : Other processing aids
Curing chemical

Manufacturer or supplier's details

Company : United Initiators (Shanghai) Co., Ltd

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

Telephone : +86 21 61172758

Emergency telephone number : +82-02-6245-1610

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

2. HAZARDS IDENTIFICATION

GHS Classification

Organic peroxides : Type E

Serious eye damage/eye irritation : Category 2B

Skin sensitisation : Category 1

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms :



Signal word : Warning

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Hazard statements : H242 Heating may cause a fire.
H317 May cause an allergic skin reaction.
H320 Causes eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

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.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
P391 Collect spillage.

Storage:
P403 Store in a well-ventilated place.
P410 Protect from sunlight.
P411 Store at temperatures not exceeding 30 °C/ 86 °F.
P420 Store separately.

Disposal:
P501 Dispose of contents/ container according to waste-related laws

Other hazards which do not result in classification

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Substance / Mixture : Mixture

Chemical nature : Organic Peroxide
Liquid mixture

Components

Chemical name	Common Name	CAS-No.	Concentration (% w/w)
dibenzoyl peroxide	dibenzoyl peroxide	94-36-0	$\geq 35 - < 40$
Zinc stearate	Zinc stearate	557-05-1	$\geq 1 - < 5$
silica gel	silica gel	112926-00-8	$\geq 0.1 - < 1$

4. FIRST AID MEASURES

General advice : Take off contaminated clothing and shoes immediately.
Call a physician immediately.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and seek medical advice.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

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.

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.

If inhaled : Administer oxygen if breathing is difficult or cyanosis is observed.
If breathed in, move person into fresh air.
If not breathing, give artificial respiration.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

If swallowed	: Call a physician immediately. Keep respiratory tract clear. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	: May cause an allergic skin reaction. Causes eye irritation. sensitising effects
Protection of first-aiders	: First Aid responders should pay attention to self-protection and use the recommended protective clothing
Notes to physician	: Treat symptomatically and supportively.

5. FIREFIGHTING MEASURES

Suitable and unsuitable extinguishing media

Suitable extinguishing media	: Water spray jet Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Risk of explosion if heated under confinement. Possible emission of gaseous decomposition products may lead to a dangerous pressure build-up. Avoid confinement. Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may auto-ignite. The product burns violently. Flash back possible over considerable distance. Do not allow run-off from fire fighting to enter drains or water courses. Vapours may form explosive mixtures with air. The product will float on water and can be reignited on surface water. Cool closed containers exposed to fire with water spray.
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use a water spray to cool fully closed containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Do not use a solid water stream as it may scatter and spread fire.
Remove undamaged containers from fire area if it is safe to do so.
Use water spray to cool unopened containers.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Follow safe handling advice and personal protective equipment recommendations.
Beware of vapours accumulating to form explosive concentrations. 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".

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contact with incompatible substances can cause decomposition at or below SADT.
Clear spills immediately.
Suppress (knock down) gases/vapours/mists with a water spray jet.
To clean the floor and all objects contaminated by this material, use plenty of water.
Soak up with inert absorbent material.
Isolate waste and do not reuse.
Non-sparking tools should be used.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

7. HANDLING AND STORAGE

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

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
Keep away from heat and sources of ignition.

SAFETY DATA SHEET

BENOX[®] L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

- Use only explosion-proof equipment.
Keep away from open flames, hot surfaces and sources of ignition.
Keep away from combustible material.
- 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 application area.
Wash thoroughly after handling.
For personal protection see section 8.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Conditions for safe storage : 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.
- Materials to avoid : Keep away from combustible materials.
Keep away from strong acids, bases, heavy metal salts and other reducing substances.
- Recommended storage temperature : 0 - 30 °C
- Further information on storage stability : Stable under recommended storage conditions.

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3 Revision Date: 2024/07/25 SDS Number (Internal): 600000000152 MSDS number: AA00974-0000000361
Date of last issue: 2023/03/07
Date of first issue: 2020/02/11

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dibenzoyl peroxide	94-36-0	TWA	5 mg/m ³	KR OEL
		TWA	5 mg/m ³	ACGIH
Zinc stearate	557-05-1	TWA (Inhalable fraction)	10 mg/m ³	KR OEL
		TWA (Inhalable particulate matter)	10 mg/m ³	ACGIH
		TWA (Respirable particulate matter)	3 mg/m ³	ACGIH
silica gel	112926-00-8	TWA	10 mg/m ³	KR OEL
		TWA	10 mg/m ³	KR OEL

Other ingredients, which are listed in section 3 but not listed in this section, do not have established occupational exposure limit values.

Engineering measures : Minimize workplace exposure concentrations.

Personal protective equipment. Among the following personal protective equipment, the PPEs which require safety certification need to be certified by KOSHA.

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

Filter type : ABEK-filter

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

Hand protection

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

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0.5 mm

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

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

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Emulsion

Colour : white

Odour : characteristic

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Odour Threshold	:	No data available
pH	:	not determined substance/mixture is non-soluble (in water)
Melting point/range	:	No data available
Boiling point/boiling range	:	Decomposition: Decomposes below the boiling point.
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Organic peroxide
Flammability (liquids)	:	Organic peroxide
Self-ignition	:	The substance or mixture is not classified as pyrophoric.
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	not determined
Solubility(ies) Water solubility	:	insoluble
Relative density	:	not determined
Density	:	1.2 g/cm ³ (25 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	not determined
Self-Accelerating decomposition 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.
Viscosity Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined

SAFETY DATA SHEET

BENOX[®]L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing. Organic peroxide
Self-heating substances	:	The substance or mixture is not classified as self heating.

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : No data available

Health hazard information

Acute toxicity

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 toxicity
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SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

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

Acute dermal toxicity : Remarks: No data available

Zinc stearate:

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

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

No data available

Product:

Remarks : May cause skin irritation in susceptible persons.

Components:

dibenzoyl peroxide:

Species : Rabbit
Result : No skin irritation

Zinc stearate:

Species : Rabbit
Method : Draize Test
Result : No skin irritation

Serious eye damage/eye irritation

Causes eye irritation.

Product:

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

Result : Irritation to eyes, reversing within 7 days
Remarks : Information refers to the main component.

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

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

Zinc stearate:

Species : Rabbit
Result : No eye irritation
Method : Draize Test

Respiratory or skin sensitisation

Respiratory sensitisation

No data available

Skin sensitisation

May cause an allergic skin reaction.

Product:

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.

Zinc stearate:

Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.
Remarks : Information given is based on data obtained from similar substances.

Carcinogenicity

No data available

Components:

dibenzoyl peroxide:

No data available

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Remarks : This information is not available.

Zinc stearate:

No data available

silica gel:

No data available

Germ cell mutagenicity

No data available

Components:

dibenzoyl peroxide:

No data available

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

Zinc stearate:

No data available

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

Remarks: Information given is based on data obtained from similar substances.

Genotoxicity in vivo : Test Type: Chromosomal aberration
Species: Rat
Result: Equivocal

silica gel:

No data available

Reproductive toxicity

No data available

SAFETY DATA SHEET

BENOX[®] L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Components:

dibenzoyl peroxide:

No data available

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

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

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

Zinc stearate:

No data available

Effects on fertility : Species: Rat
Application Route: oral (gavage)
General Toxicity F1: NOAEL: 7.5 mg/kg body weight
Method: OECD Test Guideline 416
Remarks: Based on data from similar materials

Effects on foetal development : Species: Mouse
Application Route: oral (gavage)
General Toxicity Maternal: NOAEL: 30 mg/kg body weight
Teratogenicity: NOAEL: 30 mg/kg body weight
Remarks: Based on data from similar materials

silica gel:

No data available

STOT - single exposure

No data available

Components:

dibenzoyl peroxide:

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

STOT - repeated exposure

No data available

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Components:

dibenzoyl peroxide:

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

Repeated dose toxicity

Components:

dibenzoyl peroxide:

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

Zinc stearate:

Species : Mouse
NOAEL : 458 mg/kg
Application Route : Oral
Method : OECD Test Guideline 408

Aspiration toxicity

No data available

Components:

dibenzoyl peroxide:

No aspiration toxicity classification

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Product:

Remarks : No data available

Components:

Zinc stearate:

Remarks : No data available

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

Components:

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 toxicity) : 10

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

M-Factor (Chronic aquatic toxicity) : 10

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

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Ecotoxicology Assessment

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

Zinc stearate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10,000 mg/l
Exposure time: 96 h
Method: Directive 67/548/EEC, Annex V, C.1.

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC (Pseudomonas putida): 1,000 mg/l
Exposure time: 0.5 h
Method: DIN 38 412 Part 8

Persistence and degradability

Components:

dibenzoyl peroxide:

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

Zinc stearate:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301D

Bioaccumulative potential

Components:

dibenzoyl peroxide:

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

Zinc stearate:

Partition coefficient: n-octanol/water : Remarks: No data available

SAFETY DATA SHEET

BENOX[®] L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
----------------	------------------------------	--	--

Mobility in soil

No data available

Other adverse effects

Product:

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

Components:

Zinc stearate:

Additional ecological information : No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility.
The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.

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

Disposal precautions

Dispose of contents and container according to wastes control act.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3107
Proper shipping name : ORGANIC PEROXIDE TYPE E, LIQUID
(DIBENZOYL PEROXIDE)
Class : 5.2
Packing group : Not assigned by regulation
Labels : 5.2
Environmentally hazardous : yes

SAFETY DATA SHEET

BENOX® L-40LV



Version	Revision Date:	SDS Number (Internal):	MSDS number: AA00974-0000000361
1.3	2024/07/25	600000000152	Date of last issue: 2023/03/07
			Date of first issue: 2020/02/11

IATA-DGR

UN/ID No. : UN 3107
Proper shipping name : Organic peroxide type E, liquid (Dibenzoyl peroxide)
Class : 5.2
Packing group : Not assigned by regulation
Labels : Organic Peroxides, Keep Away From Heat
Packing instruction (cargo aircraft) : 570
Packing instruction (passenger aircraft) : 570

IMDG-Code

UN number : UN 3107
Proper shipping name : ORGANIC PEROXIDE TYPE E, LIQUID (DIBENZOYL PEROXIDE)
Class : 5.2
Packing group : Not assigned by regulation
Labels : 5.2
EmS Code : F-J, S-R
Marine pollutant : yes

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

Not applicable for product as supplied.

National Regulations

Refer to section 15 for specific national regulation.

Special precautions for user

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

15. REGULATORY INFORMATION

National regulatory information

Regulation under the Occupational Safety and Health Act

Harmful Substances Prohibited from Manufacturing

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Harmful Agents to be kept below Occupational Exposure Limits

Chemical name	CAS-No.
Benzoyl peroxide	94-36-0
Zinc stearate	557-05-1

SAFETY DATA SHEET

BENOX[®] L-40LV



Version 1.3 Revision Date: 2024/07/25 SDS Number (Internal): 600000000152 MSDS number: AA00974-0000000361
Date of last issue: 2023/03/07
Date of first issue: 2020/02/11

Silica (Amorphous precipitated silica) Silica (Amorphous silicagel)	112926-00-8
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Harmful Agents Required to be kept below Permission Levels

Not applicable

Hazardous substances requiring management

Chemical name	CAS-No.	Threshold limits (%)
Zinc and its compounds	557-05-1	>= 1 %

Special Management Materials

Not applicable

Controlled Substances Subject to Environment Monitoring

Chemical name	CAS-No.	Threshold limits (%)
Mineral dusts	112926-00-8	
Silica	112926-00-8	

Controlled Substances Subject to Health Examination

Chemical name	CAS-No.	Threshold limits (%)
Mineral dusts	112926-00-8	

Hazardous Substances Subject to Process Safety Management (PSM) Reporting Obligation

Chemical name/Classification	Manufacturing or handling quantity	Storage quantity
Benzoyl peroxide	3,500 kg	3,500 kg

Regulation under the Chemicals Control Act

Toxic Chemicals

Chemical name	CAS-No.	NIER No.	Threshold limits (%)
benzoyl peroxide	94-36-0	2010-1-613	>= 25 %

Restricted Chemicals

Not applicable

Prohibited Chemicals

Not applicable

Toxic Release Inventory

Chemical name	CAS-No.	Group	Threshold limits (%)
Zinc and its compounds	557-05-1	Group II	>= 1 %

Accident Precaution Chemicals

Not applicable

Dangerous Substances Safety Management Act

Classification : Group 5, Self-reactive substances, Organic peroxides

Hazard rank : Hazardous rank I

SAFETY DATA SHEET

BENOX® L-40LV



Version 1.3	Revision Date: 2024/07/25	SDS Number (Internal): 600000000152	MSDS number: AA00974-0000000361 Date of last issue: 2023/03/07 Date of first issue: 2020/02/11
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Designated Quantity : 10 kilogram

Safety Warning : Be careful with shock, Keep away from fire

Wastes Control Act

Industrial general wastes
Follow article 13 of the act to dispose the product waste

Other requirements in domestic and other countries

Gefahrgruppe nach TRGS 741: II (German regulatory requirements)

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
AIC (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

16. OTHER INFORMATION

Further information

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/>

Issuing date : 2020/02/11

Revision number and date

Number of Revision : 1.3

SAFETY DATA SHEET

BENOX[®]L-40LV



Version	Revision Date:	SDS Number (Internal):	MSDS number: AA00974-0000000361
1.3	2024/07/25	600000000152	Date of last issue: 2023/03/07
			Date of first issue: 2020/02/11

Revision Date : 2024/07/25

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

Date format : yyyy/mm/dd

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
KR OEL : Harmful Agents to be kept below Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average
KR OEL / TWA : Time Weighted Average

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

SAFETY DATA SHEET

BENOX[®] L-40LV



Version	Revision Date:	SDS Number (Internal):	MSDS number: AA00974-0000000361
1.3	2024/07/25	600000000152	Date of last issue: 2023/03/07
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