SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

Cure It Winter Hardener

UFI:

SC10-E0QU-S001-N336

https://my.chemius.net/p/PfKj4P/en/pd/e8

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

Relevant identified uses

Hardener

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

Cure It Composites Ltd
Giants Hall Farm
WN6 8RY Wigan, United Kingdom
+44 (0)1942 518150
enquiries@cureit.com

1.4 Emergency Telephone Number

Emergency

In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

NHS: 111

Supplier

+44 (0) 3301 222666 Mon-Friday 8.30am – 4.30pm

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 2020 No. 1567 (GB CLP).

Org. Perox. D; H242 Heating may cause a fire.
Acute Tox. 4; H302 Harmful if swallowed.
Skin Corr. 1B; H314 Causes severe skin burns and eye damage.
Eye Dam. 1; H318 Causes serious eye damage.
Acute Tox. 4; H332 Harmful if inhaled.

2.2 Label elements

Labelling according to 2020 No. 1567 (GB CLP)

Signal word: DANGER

Hazard statements:

H242 Heating may cause a fire.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H332 Harmful if inhaled.

Supplemental hazard information (EU):

Not applicable

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234 Keep only in original packaging.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

Contains:

Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

2.3 Other hazards

PBT/vPvB

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.

Endocrine disrupting properties

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index REACH	%	Classification according to 2020 No. 1567 (GB CLP).	Specific Concentration Limits	Notes for substances
Dimethyl phthalate	131-11-3 205-011-6 - 01-2119437229-36	>= 55 - < 65	/	/	/

Name	CAS EC Index REACH	%	Classification according to 2020 No. 1567 (GB CLP).	Specific Concentration Limits	Notes for substances
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	1338-23-4 700-954-4 - 01-2119514691-43	>= 30 - < 35	Org. Perox. D; H242 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Acute Tox. 4; H332	/	/
hydrogen peroxide	7722-84-1 231-765-0 008-003-00-9 01-2119485845-22	>= 3 - < 5	Ox. Liq. 1; H271 Acute Tox. 4; H302 Skin Corr. 1A; H314 Acute Tox. 4; H332	Ox. Liq. 1; H271; C ≥ 63% Ox. Liq. 2; H272; 50% ≤ C < 63% Skin Corr. 1A; H314; C ≥ 70% Skin Corr. 1B; H314; 50% ≤ C < 70% Skin Irrit. 2; H315; 35% ≤ C < 50% Eye Dam. 1; H318; C ≥ 8% Eye Irrit. 2; H319; 5% ≤ C < 8% STOT SE 3; H335; C ≥ 35%	B
2-methylpentane-2,4-diol	107-41-5 203-489-0 603-053-00-3 01-2119539582-35	>= 0.1 - < 1	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 2; H361d	/	/

Notes for substances

B	Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: "nitric acid … %". In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. Take off all contaminated clothing immediately. Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. Do not leave affected person unsupervised. Symptoms may be delayed. Person giving first aid should properly protect himself.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Seek medical help immediately. If breathing is difficult, give oxygen. If breathing is irregular or respiratory arrest occurs, provide artificial respiration. Respiratory tract burning possible if aerosols are inhaled. Maintain an open airway.

Following skin contact

Take off all contaminated clothing. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Areas of the body that have come into contact with the product must be rinsed with water. Wash contaminated clothes and shoes before reuse.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Continue rinsing during transport. Remove contact lenses, if present and easy to do. Protect the undamaged eye. Consult a physician immediately! Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

Following ingestion

Immediately consult a doctor. Rinse mouth thoroughly with water. Maintain an open airway. Do not induce vomiting! Consult a physician!

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness. Harmful.

Following skin contact

Skin burns: Signs/symptoms may include localised redness, swelling, itching, dryness, blistering.

Following eye contact

Redness, pain, burning sensation, tearing, can cause permanent damage to the eyes.

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. If ingested, may cause burns of the mouth and throat, as well as perforation of the esophagus and stomach. Harmful to health.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

5.3 Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Closed container exposed to heat and fire can cause increased pressure and explosion. Contact with incompatible materials or exposure to temperatures above the self-accelerating decomposition temperature (SADT), could result in a self-accelerating decomposition reaction with the release of flammable vapors that can trigger autonomously. Vapours can travel to a source of ignition and flash back. Vapours can form explosive mixtures with air. Do not spray water directly on fire, product will float and could be reignited on surface of water. Cool containers at risk with

water spray. If possible remove containers from endangered area. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information

Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations. Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Wear suitable protective equipment; see Section 8.

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking! Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Contact with incompatible substances can cause decomposi-tion at or below SADT. Clean up all spills immediately. Knock down dust with water spray jet. Use spark-proof tools. Absorb product (with inert material), collect it in a special container and dispose it to a licensed hazardous-waste disposal contractor. Clean contaminated area with plenty of water. Collect and dispose of contaminated washing water. Never return spills in original containers for reuse. Dispose in accordance with applicable regulations (see Section 13).

Other information

See Section 7: HANDLING AND STORAGE. See Section 11 for additional information on health hazards. See Section 12: ECOLOGICAL INFORMATION.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Use spark-proof tools. Take precautionary measures against static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only explosion-proof devices. Do not spray on a naked flame or incandescent material.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols. Avoid formation of aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Open carefully the containers as they could be under pressure. Product is not for eating – do not ingest! Do not breathe vapours/mist. Spilled product should never be returned to its original packaging for reuse. Ensure adequate ventilation. Use good personal hygiene practices – wash hands at breaks and when done working with material. Wear suitable protective equipment; see Section 8. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Protect from contamination. Do not store with combustible materials. Keep away from food, drink and animal feeding stuffs. Keep in tightly closed container. Keep in cool and well ventilated area. Protect from open fire, heat and direct sunlight. Contamination may result in dangerous pres-sure increases - closed containers may rupture. Follow label instructions. The stability of the solution decreases under the influence of heat, light and the presence of impurities (traces of iron, nickel, copper, cobalt, aluminum, manganese). Electrical installations /working materials must comply with the technological safety standards. Store away from strong acids. Keep away from bases. Store separately from heavy metal salts. Keep away from reducing agents. Stable under recommended storage conditions.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage temperature

< 30 °C

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

Follow the instructions in the Technical Data Sheet and the instructions for use.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m³	ml/m³	Short-term value mg/m³	Short-term value ml/m³	Remark	Biological Tolerance Values
2-Methylpentane-2,4-diol (107-41-5)	123	25	123	25	/	/
Dimethyl phthalate (131-11-3)	5	/	10	/	/	/
Hydrogen peroxide (7722-84-1)	1.4	1	2.8	2	/	/
Methyl ethyl ketone peroxides (MEKP) (1338-23-4)	/	/	1.5	0.2	/	/

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	Value
Dimethyl phthalate	Worker	inhalation	long term systemic effects	/	66.1 mg/m³
Dimethyl phthalate	Worker	dermal	long term systemic effects	/	135 mg/kg bw/day
Dimethyl phthalate	Consumer	inhalation	long term systemic effects	/	16.3 mg/m³
Dimethyl phthalate	Consumer	dermal	long term systemic effects	/	67.5 mg/kg bw/day
Dimethyl phthalate	Consumer	oral	long term systemic effects	/	9.4 mg/kg bw/day
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Worker	inhalation	long term systemic effects	/	2.52 mg/m³
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Worker	inhalation	short term systemic effects	/	7.55 mg/m³

Name	Type	Exposure route	exp. frequency	Remark	Value
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Worker	dermal	long term systemic effects	/	1.43 mg/kg bw/day
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Consumer	inhalation	long term systemic effects	/	0.44 mg/m³
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Consumer	dermal	long term systemic effects	/	0.51 mg/kg bw/day
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Consumer	oral	long term systemic effects	/	0.26 mg/kg bw/day
hydrogen peroxide	Worker	inhalation	long term local effects	/	1.4 mg/m³
hydrogen peroxide	Worker	inhalation	short term local effects	/	3 mg/m³
hydrogen peroxide	Consumer	inhalation	long term local effects	/	0.21 mg/m³
hydrogen peroxide	Consumer	inhalation	short term local effects	/	1.93 mg/m³
2-methylpentane-2,4-diol	Worker	inhalation	long term systemic effects	/	44.43 mg/m³
2-methylpentane-2,4-diol	Worker	inhalation	long term local effects	/	49 mg/m³
2-methylpentane-2,4-diol	Worker	inhalation	short term local effects	/	98 mg/m³
2-methylpentane-2,4-diol	Worker	dermal	long term systemic effects	/	63 mg/kg bw/day
2-methylpentane-2,4-diol	Consumer	inhalation	long term systemic effects	/	7.83 mg/m³
2-methylpentane-2,4-diol	Consumer	inhalation	long term local effects	/	25 mg/m³
2-methylpentane-2,4-diol	Consumer	inhalation	short term local effects	/	49 mg/m³
2-methylpentane-2,4-diol	Consumer	dermal	long term systemic effects	/	22.5 mg/kg bw/day
2-methylpentane-2,4-diol	Consumer	oral	long term systemic effects	/	2.25 mg/kg bw/day

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	Value
Dimethyl phthalate	fresh water	/	0.192 mg/L
Dimethyl phthalate	water, intermittent release	/	0.39 mg/L
Dimethyl phthalate	marine water	/	0.019 mg/L
Dimethyl phthalate	water treatment plant	/	4 mg/L
Dimethyl phthalate	fresh water sediment	dry weight	1.3 mg/kg
Dimethyl phthalate	marine water sediment	dry weight	0.13 mg/kg
Dimethyl phthalate	soil	dry weight	3.16 mg/kg
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	fresh water	/	0.006 mg/L
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	water, intermittent release	/	0.056 mg/L
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	marine water	/	0.001 mg/L
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	water treatment plant	/	1.2 mg/L
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	fresh water sediment	dry weight	0.088 mg/kg
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	marine water sediment	dry weight	0.009 mg/kg
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	soil	dry weight	0.014 mg/kg
hydrogen peroxide	fresh water	/	0.013 mg/L
hydrogen peroxide	water, intermittent release	/	0.014 mg/L
hydrogen peroxide	marine water	/	0.013 mg/L
hydrogen peroxide	water treatment plant	/	4.66 mg/L
hydrogen peroxide	fresh water sediment	dry weight	0.047 mg/kg
hydrogen peroxide	marine water sediment	dry weight	0.047 mg/kg
hydrogen peroxide	soil	dry weight	0.002 mg/kg
2-methylpentane-2,4-diol	fresh water	/	0.429 mg/L
2-methylpentane-2,4-diol	water, intermittent release	/	4.29 mg/L
2-methylpentane-2,4-diol	marine water	/	0.043 mg/L
2-methylpentane-2,4-diol	water treatment plant	/	20 mg/L
2-methylpentane-2,4-diol	fresh water sediment	dry weight	1.59 mg/kg

Name	Exposure route	Remark	Value
2-methylpentane-2,4-diol	marine water sediment	dry weight	0.159 mg/kg
2-methylpentane-2,4-diol	soil	dry weight	0.066 mg/kg

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Tight-fitting protective goggles (BS EN ISO 16321-1:2022/A1:2025). If there is danger of splash or spray use the face shield (BS EN ISO 16321-1:2022/A1:2025).

Hand protection

Protective gloves (BS EN ISO 374). The data about break through time/strength of material are standard values! The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Appropriate materials

Material	Thickness	Penetration Time	Remark
nitrile rubber	0.4 mm	< 30 min	/
Butyl rubber	0.47 mm	480 min	/

Skin protection

Select appropriate protective clothing based on chemical re-sistance data and an assessment of the local exposure poten-tial. Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022+A1:2024). Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Apron (BS EN 14605:2005+A1:2009). Protective work clothing resistant to liquid chemicals (BS EN 14605:2005+A1:2009). At high risk of skin exposure chemical suits (BS EN 13034:2005+A1:2009) and boots may be required (BS EN ISO 20345:2022+A1:2024). Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion. Wear fire/flame resistant/retardant clothing. Protective antistatic clothing BS EN 1149 (1:2006, 2:1997 and 3:2004, 5:2018), protective antistatic shoes (BS EN ISO 20345:2022+A1:2024).

Respiratory protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. At elevated concentrations of vapours/aerosols wear mask (BS EN 136) with filter ABEK (BS EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Important health, safety and environmental information

Physical state	liquid
Shape	No information.
Colour	colourless clear
Odour	mint-like
Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	> 80 °C ((Closed cup))
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	4 — 7 at 20 °C
Viscosity (dynamic)	ca. 15 mPas at 20 °C
Solubility (Water)	Slightly soluble
Solubility (Organic solvent)	Soluble Soluble
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	No information.
Density	ca. 1.1 g/cm^3 at 20 °C

Relative vapour/gas density	No information.
Particle characteristics	No information.

9.2 Other information

Information with regard to physical hazard classes

Explosive properties	Product is not explosive. However, formation of explosive air/ vapour mixtures is possible.

Other safety characteristics

No information.

Other information

SADT=60°C.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Vapours / aerosols and propellants may form explosive mixture with air.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks. Avoid contact with incompatible materials.

10.5 Incompatible materials

Accelerators;
Strong acids.
Strong bases. Heavy metals. Heavy metal salts.
Reducing agents.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released. Hazardous combustion products, see Section 5 of the safety data sheet.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For product

Exposure route	Type	Species	Time	Value	Method	Remark
oral	ATE	/	/	1325 mg/kg	Calculated	/

Exposure route	Type	Species	Time	Value	Method	Remark
inhalation (dusts/mists)	ATE	/	/	4.04 mg/L/4h	Calculated	/

For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
Dimethyl phthalate	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
Dimethyl phthalate	inhalation (vapours)	LC_{50}	rat	/	> 10.4 mg/l/6h	/	/
Dimethyl phthalate	dermal	LD_{50}	rabbit	/	> 12000 mg/kg	/	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	oral	ATE	/	/	500 mg/kg	/	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	dermal	ATE	/	/	2500 mg/kg bw	/	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	inhalation (dusts/mists)	ATE	/	/	1.5 mg/L/4h	/	/
hydrogen peroxide	oral	LD_{50}	rat (male/female)	/	431 mg/kg	/	/
hydrogen peroxide	dermal	LD_{50}	rabbit	/	9200 mg/kg	/	/
hydrogen peroxide	inhalation (dusts/mists)	LC_{50}	rat	4 h	1.5 mg/l	/	/
2-methylpentane-2,4-diol	oral	LD_{50}	rat	/	> 2000 mg/kg	OECD 420	/
2-methylpentane-2,4-diol	dermal	LD_{50}	rabbit	/	≥ 2000 mg/kg	OECD 402	/
2-methylpentane-2,4-diol	inhalation (vapours)	LC_{50}	rat	/	> 55 mg/L/4h	OECD 403	/

Additional information

Harmful if swallowed. Harmful if inhaled.

(b) Skin corrosion/irritation

For components

Name	Species	Time	result	Method	Remark
Dimethyl phthalate	rabbit	/	Non-irritant.	Draize test	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	rabbit	/	Corrosive	/	/
hydrogen peroxide	/	3 min	Corrosive	/	/
2-methylpentane-2,4-diol	rabbit	72 h	Irritating to skin.	OECD 404	Average score = 4.2
2-methylpentane-2,4-diol	/	/	Can be absorbed through the skin.	/	/
2-methylpentane-2,4-diol	rabbit	/	Non corrosive.	OECD 404	/

Additional information

Causes severe skin burns.

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
Dimethyl phthalate	/	rabbit	/	Non-irritant.	OECD 405	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	/	/	/	Corrosive to eyes.	/	/
2-methylpentane-2,4-diol	/	/	/	Irritating to eyes.	/	/

Additional information

Causes serious eye damage.

(d) Respiratory or skin sensitisation

For components

Name	Exposure route	Species	Time	result	Method	Remark
Dimethyl phthalate	dermal	mouse	/	Non sensitising.	OECD 429	/

Name	Exposure route	Species	Time	result	Method	Remark
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	dermal	guinea pig	/	Non sensitising.	OECD 406	/
2-methylpentane-2,4-diol	dermal	guinea pig	/	Non sensitising.	OECD 406	/

Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

For components

Name	Type	Species	Time	result	Method	Remark
Dimethyl phthalate	/	/	/	Non-mutagenic.	OECD 471, 473, 476	/
Dimethyl phthalate	in-vivo mutagenicity	rat	/	Chromosome aberration assay: negative	/	intraperitoneal injection; based on data for similar material
Dimethyl phthalate	in-vivo mutagenicity	mouse	/	Negative.	/	intraperitoneal
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	/	/	/	Negative.	OECD 471, 473, 476	/
hydrogen peroxide	/	/	/	Negative.	Ames test	/
hydrogen peroxide	in-vitro mutagenicity	/	/	Positive.	OECD 473	/
hydrogen peroxide	in-vivo mutagenicity	mouse (male/female)	/	Negative.	OECD 474	/
2-methylpentane-2,4-diol	in-vitro mutagenicity	S. typhimurium TA1535	/	Negative.	OECD 471	with and without metabolic activation

(f) Carcinogenicity

For components

Name	Exposure route	Type	Species	Time	Value	result	Method	Remark
Dimethyl phthalate	dermal	/	rat	/	/	Negative.	OECD 451	/

(g) Reproductive toxicity

For components

Name	Reproductive toxicity type	Type	Species	Time	Value	result	Method	Remark
Dimethyl phthalate	Effects on fertility	/	rat	/	/	Negative.	/	/
Dimethyl phthalate	Maternal toxicity	NOAEL	rat	/	840 mg/kg bw/day	/	OECD 414	/
Dimethyl phthalate	Teratogenicity	NOAEL	rat	/	3570 mg/kg bw/day	/	OECD 414	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Effects on fertility	NOAEL	rat	/	50 mg/kg bw/day	Negative.	OECD 421	oral
2-methylpentane-2,4-diol	/	/	/	/	/	Suspected of damaging the unborn child.	/	/

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information

STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	Value	result	Method	Remark
Dimethyl phthalate	oral	NOAEL	rat	16 weeks	/	/	770 mg/kg	/	/	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	oral	NOAEL	rat	28 days	/	/	200 mg/kg	/	OECD 407	/
hydrogen peroxide	oral	NOAEL	mouse (female)	90 days	/	/	37 mg/kg	/	/	/
hydrogen peroxide	oral	NOAEL	mouse (male)	90 days	/	/	26 mg/kg	/	/	/

Name	Exposure route	Type	Species	Time	Exposure	organ	Value	result	Method	Remark
2-methylpentane-2,4-diol	oral	/	rat	90 days	/	/	450 mg/kg bw/day	/	OECD 408	/

Additional information

STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

For product

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
Dimethyl phthalate	EC_{50}	260 mg/L	72 h	algae	*Desmodesmus subspicatus*	/	/
Dimethyl phthalate	LC_{50}	> 52 mg/L	48 h	crustacea	*Daphnia magna*	/	/
Dimethyl phthalate	LC_{50}	> 39 mg/L	96 h	fish	*Pimephales promelas*	/	/

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	LC_{50}	18 - 44.2 mg/L	96 h	fish	*Poecilia reticulata*	OECD 203	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	EC_{50}	26.7 - 39 mg/L	48 h	crustacea	*Daphnia magna*	OECD 202	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	EC_{50}	2.1 - 5.6 mg/L	72 h	algae	*Raphidocelis subcapitata*	OECD 201	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	EC10	12 mg/L	30 min	other organisms	Activated sludge	OECD 209	/
hydrogen peroxide	LC_{50}	16.4 mg/L	96 h	fish	*Pimephales promelas*	/	/
hydrogen peroxide	EC_{50}	2.4 mg/L	48 h	crustacea	*Daphnia pulex*	/	/
hydrogen peroxide	EC_{50}	0.63 - 1.38 mg/L	72 h	algae	*Skeletonema costatum*	/	/
hydrogen peroxide	EC_{50}	> 1000 mg/L	3 h	/	Activated sludge	OECD 209	/
2-methylpentane-2,4-diol	LC_{50}	8510 mg/L	96 h	fish	*Gambusia affinis*	OECD 203	/
2-methylpentane-2,4-diol	EC_{50}	5410 mg/L	48 h	crustacea	*Daphnia magna*	OECD 202	/
2-methylpentane-2,4-diol	ECr50	> 429 mg/L	72 h	algae	*Pseudokirchneriella subcapitata*	OECD 201	/

Chronic (long-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
Dimethyl phthalate	NOEC	11 mg/l	102 days	fish	*Oncorhynchus mykiss*	OECD 210	/
Dimethyl phthalate	LOEC	23 mg/l	21 days	crustacea	*Daphnia magna*	/	/
Dimethyl phthalate	LOEC	24 mg/l	102 days	fish	*Oncorhynchus mykiss*	/	/
Dimethyl phthalate	NOEC	9.6 mg/l	21 days	crustacea	*Daphnia magna*	/	/
hydrogen peroxide	NOEC	0.63 mg/l	21 day	crustacea	*Daphnia magna*	/	/
2-methylpentane-2,4-diol	NOEC	429 mg/l	72 h	algae	*Pseudokirchneriella subcapitata*	OECD 201	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
Dimethyl phthalate	biodegradability	91 %	11 days	/	OECD 301 E	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	/	/	/	readily biodegradable	OECD 301D	/
hydrogen peroxide	/	/	/	readily biodegradable	/	/
2-methylpentane-2,4-diol	BOD5/COD	0.81	/	/	/	Rapidly degradable.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

For components

Name	Value	Temperature °C	pH	Concentration	Method
Dimethyl phthalate	1.54	/	/	/	/
Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	< 0.3	25	/	/	/
hydrogen peroxide	-1.57	20	/	/	/

Name	Value	Temperature °C	pH	Concentration	Method
2-methylpentane-2,4-diol	0.58	/	/	/	/

Bioconcentration factor (BCF)

For components

Name	Species	Organism	Value	Duration	Evaluation	Method	Remark
Dimethyl phthalate	BCF	/	57	/	The bioconcentration factor is low.	OECD 305	/
2-methylpentane-2,4-diol	/	/	/	/	Bioaccumulation is not expected.	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

For components

Name	Type	Criterion	Value	Evaluation	Method	Remark
Dimethyl phthalate	Soil	/	0.0032 Pa.m^3 / mol	/	/	25 °C

12.5 Results of PBT and vPvB 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

For product

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as dangerous for environment. Do not allow to reach ground water, water courses or sewage system.

For components

2-methylpentane-2,4-diol
Soluble in water.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not contaminate ponds, waterways or ditches with chemical or used container.

Waste codes / waste designations according to LoW

No information.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Empty remaining contents. Dispose of as unused product. Empty container is not suitable for reuse. Clean container with water. Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Empty containers represent a fire hazard as they may contain flammable product residues and vapours. Uncleaned containers should not be perforated, cut or welded.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

ADR/RID	IMDG	IATA	ADN
UN 3105	UN 3105	UN 3105	UN 3105

14.2 UN proper shipping name

ADR/RID	IMDG	IATA	ADN
ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane)

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA	ADN
5.2	5.2	5.2	5.2
			

14.4 Packing group

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.5 Environmental hazards

ADR/RID	IMDG	IATA	ADN
NO	NO	NO	NO

14.6 Special precautions for user

ADR/RID	IMDG	IATA	ADN
Limited quantities: **125 ml** Special provisions: **122, 274** Packing Instructions: **P520** Transport category: **2** Tunnel restriction code: **(D)** Classification code: **P1**	Limited quantities: **125 ml** EmS: **F-J, S-R** Flash point: **80 °C**	Maximum Net Quantity/Package (Max Net Qty/Pkg): **Not, Accept**	Limited quantities: **125 ml**

14.7 Maritime transport in bulk according to IMO instruments

ADR/RID	IMDG	IATA	ADN
	Goods may not be carried in bulk in bulk containers, containers or vehicles.		

SECTION 15: REGULATORY INFORMATION

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

- The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 (UK REACH - 2020 No. 1577).

- The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020 (GB CLP - 2020 No. 1567).

Information according 2012 No. 1715 about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to 2020 No. 1617 (The Detergents (Amendment) (EU Exit) Regulations 2020)

No information.

Special instructions

Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3. Seveso P6b: SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES.

15.2 Chemical Safety Assessment

The chemical safety assessment has been made.

SECTION 16: OTHER INFORMATION

Indication of changes

No information.

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GB CLP - Classification Labelling Packaging Regulation; The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020 - 2020 No. 1567
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC_{50} - Lethal Concentration to 50 % of a test population
LD_{50} - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)

LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UK REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals - The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 - 2020 No. 1577
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H242 Heating may cause a fire.
H271 May cause fire or explosion; strong oxidiser.
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and nationallaws. The user's working conditions however, are beyond our

knowledge and control. The product is not to be used for purposesother than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure thatthe necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions.The information given in this SDS is to describe the product only in terms of health and safety requirements and should not,therefore, be construed as guaranteeing specific properties.