

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



CHP Härter

| | | | |
|---------|---------|----------------|---------------------------------|
| Version | | Revision Date: | Date of last issue: - |
| 2.0 | DE / EN | 01.07.2022 | Date of first issue: 01.07.2022 |

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

1.1 Product identifier

Trade name : CHP Härter
Product code : 147.473

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

Use of the Sub-
stance/Mixture : Curing chemical

Recommended restrictions : Industrial use, professional use
on use

1.3 Details of the supplier of the safety data sheet

Company : A.Förster & Co.KG
Esinger Steinweg 50
25436 Uetersen
Germany
info@foerster-co.de

Telephone : 04122-3682

Responsible Department : Laboratory

04122-3682
info@foerster-co.de

1.4 Emergency telephone

Telephone : Giftinformationszentrum (GIZ)-Nord,
Göttingen, Deutschland
0551 19240

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

| | |
|--|--|
| Flammable liquids, Category 2 | H225: Highly flammable liquid and vapor. |
| Organic peroxides, Type D | H242: Heating may cause a fire. |
| Skin corrosion, Sub-category 1B | H314: Causes severe skin burns and eye damage. |
| Serious eye damage, Category 1 | H318: Causes serious eye damage. |
| Reproductive toxicity, Category 2 | H361d: Suspected of damaging the unborn child. |
| Specific target organ toxicity - single exposure, Category 3, Central nervous system | H336: May cause drowsiness or dizziness. |
| Specific target organ toxicity - single exposure, Category 3, Respiratory system | H335: May cause respiratory irritation. |

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

| | | |
|--------------------------------|---|--|
| Hazard pictograms | : |  |
| Signal Word | : | Danger |
| Hazard Statements | : | H225 Highly flammable liquid and vapor. H242 Heating may cause a fire. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H361d Suspected of damaging the unborn child. |
| Supplemental Hazard Statements | : | EUH066 Repeated exposure may cause skin dryness or cracking. |
| Precautionary Statements | : | P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep/Store away from clothing/ strong acids, bases, |

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heavy metal salts and other reducing substances /combustible materials.

P234 Keep only in original packaging.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

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/ doctor.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazardous ingredients which must be listed on the label:

ethyl acetate

4-hydroxy-4-methylpentan-2-one

cyclohexanone, peroxide

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

Chemical nature : Mixture
contains
Organic Peroxide

Components

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| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|--------------------------------|---|---|--------------------------|
| ethyl acetate | 141-78-6 205-500-4 607-022-00-5 01-2119475103-46 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system) EUH066 | >= 50 - < 70 |
| 4-hydroxy-4-methylpentan-2-one | 123-42-2 204-626-7 603-016-00-1 01-2119473975-21 | Flam. Liq. 3; H226 Eye Irrit. 2; H319 Repr. 2; H361d STOT SE 3; H335 (Respiratory system) specific concentration limit Eye Irrit. 2; H319 >= 10 % | >= 20 - < 30 |
| cyclohexanone, peroxide | 12262-58-7 235-527-7 617-010-00-1 01-2120762253-58 | Org. Perox. A; H240 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) specific concentration limit STOT SE 3; H335 >= 5 % STOT SE 3; H335 >= 5 % Acute toxicity estimate Acute oral toxicity: 1.242 mg/kg | >= 10 - < 20 |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
Move out of dangerous area.

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- Take off contaminated clothing and shoes immediately.
Show this material safety data sheet to the doctor in attendance.
First aider needs to protect himself.
- If inhaled : Move to fresh air.
Get medical attention.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off immediately with plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Keep eye wide open while rinsing.
Remove contact lenses.
Protect unharmed eye.
Call a physician immediately.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Call a physician immediately.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Causes serious eye damage.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of damaging the unborn child.
Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Water spray jet
Alcohol-resistant foam
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire : Hazardous decomposition products formed under fire condi-

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fighting

tions.

Hazardous combustion products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit. Exposure to decomposition products may be a hazard to health.

Further information : Use water spray to cool unopened 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 : Wear personal protective equipment. Evacuate personnel to safe areas. Remove all sources of ignition. Do not smoke. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Wear respiratory protection.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. 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 : Soak up with inert absorbent material and dispose of as hazardous waste. Sweep up and shovel into suitable containers for disposal. Contact with incompatible substances can cause decomposition at or below SADT.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : Ensure that eyewash stations and safety showers are close to the workstation location.

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Advice on safe handling : Wear personal protective equipment.
Keep away from heat and sources of ignition.
Handle and open container with care.
Keep container tightly closed and dry.
Never return unused material to storage receptacle.
Risk of decomposition.
Prevent contamination with readily oxidizable materials and polymerization accelerators.
In case of insufficient ventilation, wear suitable respiratory equipment.
Do not breathe vapors/dust.
Avoid formation of aerosol.
Avoid contact with eyes.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition. Keep away from direct sunlight. Avoid shock and friction. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Vapors may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Store in cool place. Store between 41 and 77 °F in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store away from other materials.

Advice on common storage : Keep away from strong acids, bases, heavy metal salts and other reducing substances.
Keep away from food, drink and animal feedingstuffs.
Organic peroxides

Storage class (TRGS 510) : 5.2

7.3 Specific end use(s)

Specific use(s) : No data available
The rules which cover amongst other things the requirement for ventilation, protective clothing, personal protective equipment etc. can be obtained from the National Occupational Health and Safety Board.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---------------------------------|----------|-------------------------------|------------------------------------|-------------|
| ethyl acetate | 141-78-6 | STEL | 400 ppm 1.468 mg/m ³ | 2017/164/EU |
| Further information: Indicative | | | | |

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| | | TWA | 200 ppm 734 mg/m ³ | 2017/164/EU |
| | Further information: Indicative | | | |
| | | AGW | 200 ppm 730 mg/m ³ | DE TRGS 900 |
| | Peak-limit category: 2;(I) | | | |
| | Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| 4-hydroxy-4-methylpentan-2-one | 123-42-2 | AGW | 20 ppm 96 mg/m ³ | DE TRGS 900 |
| | Peak-limit category: 2;(I) | | | |
| | Further information: Skin absorption | | | |

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

| Substance name | End Use | Routes of exposure | Potential health effects | Value |
|--------------------------------|-----------|--------------------|---|-----------------------------------|
| ethyl acetate | Workers | Inhalation | Long-term systemic effects, Long-term local effects | 734 mg/m ³ 200 ppm |
| | Workers | Inhalation | Acute systemic effects, Acute local effects | 1468 mg/m ³ 400 ppm |
| | Workers | Skin contact | Long-term systemic effects | 63 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects, Long-term local effects | 367 mg/m ³ |
| | Consumers | Inhalation | Acute systemic effects, Acute local effects | 734 mg/m ³ 200 ppm |
| | Consumers | Skin contact | Long-term systemic effects | 37 mg/kg |
| | Consumers | Ingestion | Long-term exposure | 4,5 mg/kg |
| 4-hydroxy-4-methylpentan-2-one | Workers | Inhalation | Long-term systemic effects | 59,2 mg/m ³ |
| | Workers | Inhalation | Acute local effects | 240 mg/m ³ |
| | Workers | Skin contact | Long-term systemic effects | 840 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 10,4 mg/m ³ |
| | Consumers | Skin contact | Long-term systemic effects | 60 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 3 mg/kg |

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

| Substance name | Environmental Compartment | Value |
|----------------|---------------------------|------------|
| ethyl acetate | Fresh water | 0,24 mg/l |
| | Sea water | 0,024 mg/l |
| | Intermittent use/release | 1,65 mg/l |
| | Sewage treatment plant | 650 mg/l |

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| | | |
|--------------------------------|----------------------------|-------------|
| | Fresh water sediment | 1,15 mg/kg |
| | Sea sediment | 0,115 mg/kg |
| | Soil | 0,148 mg/kg |
| | Oral (Secondary Poisoning) | 200 mg/kg |
| 4-hydroxy-4-methylpentan-2-one | Fresh water | 2 mg/l |
| | Sea water | 0,2 mg/l |
| | Sewage treatment plant | 10 mg/l |
| | Fresh water sediment | 9,06 mg/kg |
| | Sea sediment | 0,91 mg/kg |
| | Soil | 0,63 mg/kg |

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection

Material : Neoprene
Directive : DIN EN 374

Material : Nitrile rubber
Directive : DIN EN 374

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. 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. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.

Skin and body protection : Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres.
Long sleeved clothing

Respiratory protection : Apply technical measures to comply with the occupational exposure limits.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
In case of inadequate ventilation wear respiratory protection.

Filter type : Combined particulates and organic vapor type (A-P)

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.
Avoid contact with the skin and the eyes.
Use only with adequate ventilation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

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| | |
|--|-----------------------------------|
| Physical state | : liquid |
| Color | : colorless |
| Odor | : characteristic |
| Melting point/range | : not determined |
| Boiling point/boiling range | : 77 °C |
| Upper explosion limit / Upper flammability limit | : 11,5 %(V) |
| Lower explosion limit / Lower flammability limit | : 1,4 %(V) |
| Flash point | : -4 °C |
| Self-Accelerating decomposition temperature (SADT) | : 50 °C |
| pH | : 4 - 6 Concentration: 10 % |
| Viscosity | |
| Viscosity, dynamic | : not determined |
| Viscosity, kinematic | : No data available |
| Solubility(ies) | |
| Water solubility | : partly miscible |
| Partition coefficient: n-octanol/water | : No data available |
| Vapor pressure | : not determined |
| Density | : ca. 1 g/cm ³ (20 °C) |

9.2 Other information

| | |
|----------------------|---|
| Oxidizing properties | : Organic peroxide Sustains combustion |
| Organic peroxides | : Peroxide content: 10 % The substance or mixture is an organic peroxide classified as type D. |

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SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.
Decomposes on heating.

10.3 Possibility of hazardous reactions

Hazardous reactions : Risk of decomposition.
Reacts violently in contact with acids, amines, driers, polymerization accelerators and easily oxidized materials.

10.4 Conditions to avoid

Conditions to avoid : Do not expose to temperatures above: > 25 °C
Extremes of temperature and direct sunlight.
Keep away from heat and sources of ignition.
Contact with incompatible substances can cause decomposition at or below SADT.

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

ethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 5.620 mg/kg

Acute inhalation toxicity : LC0 (Rat): 22,5 mg/l, > 6000 ppm

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Exposure time: 6 h
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 20.000 mg/kg

4-hydroxy-4-methylpentan-2-one:

Acute oral toxicity : LD50 Oral (Rat): 3.002 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat): >= 7,6 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD0 (Rat): > 1.875 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

cyclohexanone, peroxide:

Acute oral toxicity : LD50 Oral (Rat): 1.242 mg/kg
Method: OECD Test Guideline 401

Acute toxicity estimate: 1.242 mg/kg
Method: Calculation method

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Assessment: The substance or mixture has no acute inhalation toxicity

Skin corrosion/irritation

Causes severe burns.

Components:

cyclohexanone, peroxide:

Species : Rabbit
Result : Corrosive
Remarks : Category 1B

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

cyclohexanone, peroxide:

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Species : Rabbit
Result : Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging the unborn child.

Components:

4-hydroxy-4-methylpentan-2-one:

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

STOT-single exposure

May cause respiratory irritation.
May cause drowsiness or dizziness.

Components:

4-hydroxy-4-methylpentan-2-one:

Assessment : May cause respiratory irritation.

cyclohexanone, peroxide:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : 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

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levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

ethyl acetate:

- | | | |
|--|---|--|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): 230 mg/l Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 610 mg/l Exposure time: 48 h |
| Toxicity to algae/aquatic plants | : | NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 |
| Toxicity to microorganisms | : | NOEC (Pseudomonas putida): 650 mg/l Exposure time: 16 h |
| Toxicity to fish (Chronic toxicity) | : | NOEC: > 75,6 mg/l Exposure time: 32 d Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 210 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC: 2,4 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 |

4-hydroxy-4-methylpentan-2-one:

- | | | |
|---|---|--|
| Toxicity to fish | : | LC50 (Oryzias latipes (Orange-red killifish)): > 100 mg/l End point: mortality Exposure time: 96 h Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1.000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201 |
| Toxicity to daphnia and other | : | NOEC: 100 mg/l |

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aquatic invertebrates (Chronic toxicity) : Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

cyclohexanone, peroxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 48 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to microorganisms : EC50 (Bacteria): 11,1 mg/l
Exposure time: 0,5 h

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

12.2 Persistence and degradability

Components:

4-hydroxy-4-methylpentan-2-one:

Biodegradability : Result: rapidly biodegradable
Biodegradation: 98,51 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

12.3 Bioaccumulative potential

Components:

ethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 0,68 (25 °C)

4-hydroxy-4-methylpentan-2-one:

Partition coefficient: n-octanol/water : log Pow: -0,09 (20 °C)

cyclohexanone, peroxide:

Partition coefficient: n-octanol/water : Pow: 1,2 (29 °C)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or

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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 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.

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not mix waste streams during collection.
Do not dispose of with domestic refuse.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
Dispose of in accordance with local regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of in accordance with local regulations.

Waste Code : The following Waste Codes are only suggestions:
16 05 06, laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
16 09 03, peroxides, for example hydrogen peroxide

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3105
ADR : UN 3105
RID : UN 3105
IMDG : UN 3105
IATA : UN 3105

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14.2 UN proper shipping name

ADN : ORGANIC PEROXIDE TYPE D, LIQUID
(cyclohexanone, peroxide)

ADR : ORGANIC PEROXIDE TYPE D, LIQUID
(cyclohexanone, peroxide)

RID : ORGANIC PEROXIDE TYPE D, LIQUID
(cyclohexanone, peroxide)

IMDG : ORGANIC PEROXIDE TYPE D, LIQUID
(cyclohexanone, peroxide)

IATA : Organic peroxide type D, liquid
(cyclohexanone, peroxide)

14.3 Transport hazard class(es)

ADN : 5.2

ADR : 5.2

RID : 5.2

IMDG : 5.2

IATA : 5.2

14.4 Packing group

ADN
Packing group : Not assigned by regulation
Classification Code : P1
Labels : 5.2

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

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

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

IATA (Cargo)
Packing instruction (cargo aircraft) : 570
Packing group : Not assigned by regulation
Labels : Organic Peroxides, Keep Away From Heat

IATA (Passenger)
Packing instruction (passen- : 570

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ger aircraft)
Packing group : Not assigned by regulation
Labels : Organic Peroxides, Keep Away From Heat

14.5 Environmental hazards

ADN
Environmentally hazardous : no

ADR
Environmentally hazardous : no

RID
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

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

14.7 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

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

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

Water hazard class (Germany) : WGK 2 obviously hazardous to water
Classification according to AwSV, Annex 1 (5.2)

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Other regulations:

BG-Merkblatt M001 beachten (German regulatory requirements)
BGV B4 organische Peroxide. (German regulatory requirements)

Gefahrengruppe nach § 3 BGV B4: III (German regulatory requirements)

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

§ 5Abs. 4b : Derogation according to the Ordinance on the Prohibition of Chemicals (ChemVerbotsV)

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

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

15.2 Chemical Safety Assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

SECTION 16: Other information

Full text of H-Statements

| | |
|--------|---|
| H225 | : Highly flammable liquid and vapor. |
| H226 | : Flammable liquid and vapor. |
| H240 | : Heating may cause an explosion. |
| H302 | : Harmful if swallowed. |
| H314 | : Causes severe skin burns and eye damage. |
| H318 | : Causes serious eye damage. |
| H319 | : Causes serious eye irritation. |
| H335 | : May cause respiratory irritation. |
| H336 | : May cause drowsiness or dizziness. |
| H361d | : Suspected of damaging the unborn child. |
| EUH066 | : Repeated exposure may cause skin dryness or cracking. |

Full text of other abbreviations

| | |
|-------------|--|
| Acute Tox. | : Acute toxicity |
| Eye Dam. | : Serious eye damage |
| Eye Irrit. | : Eye irritation |
| Flam. Liq. | : Flammable liquids |
| Org. Perox. | : Organic peroxides |
| Repr. | : Reproductive toxicity |
| Skin Corr. | : Skin corrosion |
| STOT SE | : Specific target organ toxicity - single exposure |
| 2017/164/EU | : Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values |
| DE TRGS 900 | : Germany. TRGS 900 - Occupational exposure limit values. |

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2017/164/EU / STEL : Short term exposure limit
2017/164/EU / TWA : Limit Value - eight hours
DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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

Classification of the mixture:

Flam. Liq. 2 H225
Org. Perox. D H242
Skin Corr. 1B H314
Eye Dam. 1 H318
Repr. 2 H361d
STOT SE 3 H336
STOT SE 3 H335

Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

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 guid-

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ance 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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