

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Cumene hydroperoxide, 70%, 25 ml**

Print date: 14.04.2015

Product code: 9991242

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Cumene hydroperoxide, 70%, 25 ml

CAS No: 80-15-9  
Index No: 617-002-00-8  
EC No: 201-254-7

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH  
Street: Im Forstgarten 1  
Place: D-66459 Kirkel  
Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH  
Street: Im Stadtwald, Gebäude A1.2  
Place: D-66123 Saarbrücken  
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232  
e-mail: michael.bauer@carbolution-chemicals.de  
Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: O - Oxidizing, T - Toxic, C - Corrosive, Xn - Harmful, N - Dangerous for the environment

R phrases:

May cause fire.

Toxic by inhalation.

Harmful in contact with skin and if swallowed.

Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Causes burns.

Toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Organic peroxide: Org. Perox. E

Acute toxicity: Acute Tox. 3

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Specific target organ toxicity - repeated exposure: STOT RE 2

Skin corrosion/irritation: Skin Corr. 1B

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Hazardous to the aquatic environment: Aquatic Chronic 2  
 Hazard Statements:  
 Heating may cause a fire.  
 Toxic if inhaled.  
 Harmful in contact with skin.  
 Harmful if swallowed.  
 May cause damage to organs through prolonged or repeated exposure.  
 Causes severe skin burns and eye damage.  
 Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Hazardous components which must be listed on the label

cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide

Signal word:

Danger

Pictograms:

GHS05-GHS06-GHS08-GHS09



##### Hazard statements

H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H330 Fatal if inhaled.  
 H335 May cause respiratory irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H411 Toxic to aquatic life with long lasting effects.

##### Precautionary statements

P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P310 Immediately call a POISON CENTER/doctor.  
 P314 Get medical advice/attention if you feel unwell.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: C<sub>9</sub>H<sub>12</sub>O<sub>2</sub>

Molecular weight: 152,19

##### Hazardous components

| EC No        | Chemical name   | Quantity |
|--------------|---|----------|
| CAS No       | Classification according to Directive 67/548/EEC  |          |
| Index No     | Classification according to Regulation (EC) No. 1272/2008 [CLP]   |          |
| 201-254-7    | cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide  | 100 %    |
| 80-15-9      | O - Oxidizing, T - Toxic, C - Corrosive, Xn - Harmful, N - Dangerous for the environment R7-23-21/22-48/20/22-34-51-53                      |          |
| 617-002-00-8 | Org. Perox. E, Acute Tox. 3, Acute Tox. 4, Acute Tox. 4, STOT RE 2, Skin Corr. 1B, Aquatic Chronic 2; H242 H331 H312 H302 H373 ** H314 H411 |          |

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

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**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Move victim out of danger zone.

**After inhalation**

Provide fresh air. In case of breathing difficulties administer oxygen. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

**After contact with skin**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Medical treatment necessary.

**After contact with eyes**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Potential hazards: Stomach perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

The product itself does not burn. Vapours may form explosive mixtures with air.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Soak up inert absorbent and dispose as waste requiring special attention. Unsuitable material for taking up: Combustible solids

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep in a cool place. Keep away from sources of ignition. - No smoking.

##### **Advice on storage compatibility**

Keep away from combustible material.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls

##### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### **Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

##### **Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

##### **Hand protection**

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

##### **Skin protection**

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

##### **Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

### SECTION 9: Physical and chemical properties

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

|                 |                   |
|-----------------|-------------------|
| Physical state: | liquid            |
| Colour:         | light yellow      |
| Odour:          | No data available |

#### **Test method**

|           |                   |
|-----------|-------------------|
| pH-Value: | No data available |
|-----------|-------------------|

##### **Changes in the physical state**

|  |                   |
|--|-------------------|
| Initial boiling point and boiling range: | 100 °C            |
| Sublimation point:                       | No data available |
| Softening point:                         | No data available |
| Flash point:                             | 79 °C             |

##### **Flammability**

|                         |                   |
|-------------------------|-------------------|
| Solid:                  | No data available |
| Gas:                    | No data available |
| Lower explosion limits: | No data available |

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|                                  |                        |
|----------------------------------|------------------------|
| Upper explosion limits:          | No data available      |
| Ignition temperature:            | No data available      |
| <b>Auto-ignition temperature</b> |                        |
| Solid:                           | No data available      |
| Gas:                             | No data available      |
| Vapour pressure:                 | 0,5 hPa                |
| (at 55 °C)                       |                        |
| Vapour pressure:                 | No data available      |
| Density (at 25 °C):              | 1,03 g/cm <sup>3</sup> |
| Water solubility:                | No data available      |
| Partition coefficient:           | No data available      |
| Viscosity / dynamic:             | No data available      |
| Viscosity / kinematic:           | No data available      |
| Flow time:                       | No data available      |
| Vapour density:                  | 5,25                   |
| Evaporation rate:                | No data available      |
| Solvent separation test:         | No data available      |
| Solvent content:                 | No data available      |

**9.2. Other information**

|                |                   |
|----------------|-------------------|
| Solid content: | No data available |
|----------------|-------------------|

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No data available

**10.3. Possibility of hazardous reactions**

No data available

**10.4. Conditions to avoid**

In case of impact or pressure influence: Explosion hazard. Remove all sources of ignition. Keep away from heat. Ignition hazard.

**10.5. Incompatible materials**

Oxidizing agents, strong.

**10.6. Hazardous decomposition products**

No data available

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

Toxicological data are not available.

**Acute toxicity**

Toxic. Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

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| CAS No  | Chemical name  |        |           |         |        |
|---------|--|--------|-----------|---------|--------|
|         | Exposure routes  | Method | Dose      | Species | Source |
| 80-15-9 | cumene hydroperoxide, alpha,alpha-dimethylbenzyl hydroperoxide |        |           |         |        |
|         | oral   | LD50   | 382 mg/kg | Ratte   |        |
|         | dermal   | LD50   | 500 mg/kg | Ratte   |        |
|         | inhalative (4 h) vapour  | LC50   | 1,4 mg/l  | Ratte   |        |
|         | inhalative (0 h) aerosol                                       | ATE    | 0,5 mg/l  |         |        |

#### Irritation and corrosivity

after ingestion: Irritant and corrosive effects. Potential hazards: Stomach perforation.

#### Sensitising effects

No data available

#### Severe effects after repeated or prolonged exposure

No data available

#### Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

#### Practical experience

#### Observations relevant to classification

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

No data available

#### 12.5. Results of PBT and vPvB assessment

No data available

#### 12.6. Other adverse effects

No data available

#### Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

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**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

**Land transport (ADR/RID)**

**14.1. UN number:** UN3109  
**14.2. UN proper shipping name:** ORGANIC PEROXIDE TYPE F, LIQUID  
**14.3. Transport hazard class(es):** 5.2  
 Hazard label: 5.2  
 Classification code: P1  
 Special Provisions: 122 274  
 Limited quantity: 125 mL  
 Transport category: 2  
 Hazard No: 539  
 Tunnel restriction code: D

**Other applicable information (land transport)**

E0

**Inland waterways transport (ADN)**

**14.1. UN number:** UN3109  
**14.2. UN proper shipping name:** ORGANIC PEROXIDE TYPE F, LIQUID  
**14.3. Transport hazard class(es):** 5.2  
 Hazard label: 5.2  
 Classification code: P1  
 Special Provisions: 122 274  
 Limited quantity: 125 mL

**Other applicable information (inland waterways transport)**

E0

**Marine transport (IMDG)**

**14.1. UN number:** UN3109  
**14.2. UN proper shipping name:** ORGANIC PEROXIDE TYPE F, LIQUID  
**14.3. Transport hazard class(es):** 5.2  
**14.4. Packing group:** -

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Hazard label: 5.2  
 Special Provisions: 122, 274, 323  
 Limited quantity: 125 mL  
 EmS: F-J, S-R

**Other applicable information (marine transport)**

E0

**Air transport (ICAO)**

**14.1. UN number:** UN3109  
**14.2. UN proper shipping name:** ORGANIC PEROXIDE TYPE F, LIQUID  
**14.3. Transport hazard class(es):** 5.2  
 Hazard label: 5.2  
 Special Provisions: A20 A150 A802  
 Limited quantity Passenger: Forbidden  
 IATA-packing instructions - Passenger: 570  
 IATA-max. quantity - Passenger: 10 L  
 IATA-packing instructions - Cargo: 570  
 IATA-max. quantity - Cargo: 25 L

**Other applicable information (air transport)**

E0

: Forbidden

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes

## SECTION 15: Regulatory information

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

**EU regulatory information**

2004/42/EC (VOC): 100 %

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

**National regulatory information**

Water contaminating class (D): 2 - water contaminating

## SECTION 16: Other information

**Relevant R-phrases (Number and full text)**

07 May cause fire.  
 21/22 Harmful in contact with skin and if swallowed.  
 23 Toxic by inhalation.  
 34 Causes burns.  
 48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.  
 51 Toxic to aquatic organisms.  
 53 May cause long-term adverse effects in the aquatic environment.

**Relevant H- and EUH-phrases (Number and full text)**

H242 Heating may cause a fire.  
 H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.



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|      |  |
|------|--|
| H330 | Fatal if inhaled.  |
| H331 | Toxic if inhaled.  |
| H335 | May cause respiratory irritation.                                  |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects.                   |