



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

- **1.1 Product identifier**
- **Trade name:** PEROXAN A-40 L
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Reaction initiator  
For industrial use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** PERGAN GmbH  
Hilfsstoffe für industrielle Prozesse  
Schlavenhorst 71  
D-46395 Bocholt  
Tel: +49 2871 9902-0  
Fax: +49 2871 9902-50
- **Further information obtainable from:** Qualified person: E-mail: msds@pergan.com
- **1.4 Emergency telephone number:** - Tel: +49 2871 9902-0

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Org. Perox. D H242 Heating may cause a fire.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**    
GHS02 GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:** 2,4-Pentadione, peroxide
- **Hazard statements** H242 Heating may cause a fire.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.
- **Precautionary statements**

|                |   |
|----------------|---|
| P210           | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  |
| P220           | Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy metal compounds and amines). |
| P234           | Keep only in original packaging.  |
| P264           | Wash thoroughly after handling.   |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.   |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.          |
| P410           | Protect from sunlight.  |
| P411+P235      | Store at temperatures not exceeding +25°C. Keep cool.   |
| P420           | Store separately.   |
| P501           | Dispose of contents/container in accordance with local/regional/national/international regulations.                                       |
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH, annex XIII.
- **vPvB:** The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Dangerous components:

|   |  |        |
|---|--|--------|
| CAS: 123-42-2<br>EINECS: 204-626-7<br>Index number: 603-016-00-1<br>Reg-No.: 01-2119473975-21 | 4-hydroxy-4-methylpentan-2-one<br>Flam. Liq. 3, H226; Eye Irrit. 2, H319<br>Specific concentration limit: Eye Irrit. 2; H319: C ≥ 10 % | 50-60% |
|---|--|--------|

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|  |   |        |
|--|---|--------|
| CAS: 13784-51-5<br>EINECS: 237-438-9<br>Reg-No.: 01-2119965139-28                                    | 2,4-Pentadione, peroxide<br>Alternative CAS number: 37187-22-7<br>Org. Perox. D, H242; Eye Irrit. 2, H319; Skin Sens. 1, H317   | 25-40% |
| CAS: 123-54-6<br>EINECS: 204-634-0<br>Index number: 606-029-00-0<br>Reg-No.: UK-01-4463411452-2-0001 | pentane-2,4-dione<br>Flam. Liq. 3, H226; Acute Tox. 4, H302   | 1-5%   |
| CAS: 7722-84-1<br>EINECS: 231-765-0<br>Index number: 008-003-00-9<br>Reg-No.: 01-2119485845-22       | hydrogen peroxide solution<br>Ox. Liq. 1, H271; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H332<br>Specific concentration limits: Skin Corr. 1A; H314: C ≥ 70 %<br>Skin Corr. 1B; H314: 50 % ≤ C < 70 %<br>Skin Irrit. 2; H315: 35 % ≤ C < 50 %<br>Eye Dam. 1; H318: C ≥ 8 %<br>Eye Irrit. 2; H319: 5 % ≤ C < 8 %<br>STOT SE 3; C ≥ 35 %<br>Ox. Liq. 1; H271: C ≥ 70 %<br>Ox. Liq. 2; H272: 50 % ≤ C < 70 % | 1-5%   |

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information:



Take care of personal protection for the first aider.

##### After inhalation:

Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.  
Take affected persons into fresh air and keep quiet.

##### After skin contact:

Immediately wash with water and soap and rinse thoroughly.  
Immediately remove contaminated clothing.

##### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

##### After swallowing:

If symptoms persist consult doctor.

#### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

#### 5.2 Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded.  
Hydrocarbons, carbondioxide and -monoxid.

#### 5.3 Advice for firefighters

##### Protective equipment:

Do not inhale explosion gases or combustion gases.

##### Additional information

Cool endangered receptacles with water spray.  
Self-protection first!

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.  
In case of further temperature should be cooled with waterspray from a safe distance.  
Wear breathing apparatus with filter A during decomposition of materials.  
Wear protective equipment. Keep unprotected persons away.

#### 6.2 Environmental precautions:



Do not allow to enter sewers/ surface or ground water.

#### 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.  
Large quantities should be diluted with suitable desensitisation agent to a concentration below 10 % before disposal.  
Soak up with absorbant material (e. g. Vermiculit) and dispose of in accordance with government regulations.

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- **6.4 Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.  
In case of large spillage the environmental authority should be informed.

## SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.  
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.  
Do not refill residue into storage receptacles.  
Restrict the quantity stored at the work place.  
Use only in well ventilated areas.  
Before break and at the end of work hands should be thoroughly washed.  
Only use tools made of suitable materials (e. g. polyethylene or stainless steel).  
Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).  
Avoid contact with skin and eyes.  
While using do not eat, drink or smoke.  
Avoid shock and friction.



Do not smoke.

· **Information about fire - and explosion protection:**

Protect from heat.  
Prevent impact and friction.  
Fumes can combine with air to form an explosive mixture.



Wear shoes with conductive soles.



Avoid open flames, sparks, direct sunlight and other sources of ignition.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:** Pay attention to the special requirements of your local authorities for storing dangerous goods.

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.  
Prevent any seepage into the ground.  
Use only receptacles specifically permitted for this substance/product.

· **Information about storage in one common storage facility:**

Do not store or park organic peroxide together with heavy metal compounds and amines.  
Store away from foodstuffs, drinks and feeding stuffs.

· **Further information about storage conditions:**

Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Protect from contamination.

· **Recommended storage temperature (To maintain quality):**

+5 ..... +25 °C

· **Storage class:**

5.2

· **7.3 Specific end use(s)**

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**123-42-2 4-hydroxy-4-methylpentan-2-one**

|                     |   |
|---------------------|---|
| WEL (Great Britain) | Short-term value: 362 mg/m <sup>3</sup> , 75 ppm<br>Long-term value: 241 mg/m <sup>3</sup> , 50 ppm |
|---------------------|---|

**7722-84-1 hydrogen peroxide solution**

|                     |   |
|---------------------|---|
| WEL (Great Britain) | Short-term value: 2.8 mg/m <sup>3</sup> , 2 ppm<br>Long-term value: 1.4 mg/m <sup>3</sup> , 1 ppm |
|---------------------|---|

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| · DNELs  |                         |                                 |
|--|-------------------------|---------------------------------|
| <b>123-42-2 4-hydroxy-4-methylpentan-2-one</b> |                         |                                 |
| Dermal   | DNEL Longterm System    | 467 mg/kg bw/day (Worker)       |
| Inhalative                                     | DNEL Longterm System    | 32.6 mg/m <sup>3</sup> (Worker) |
| <b>13784-51-5 2,4-Pentadione, peroxide</b>     |                         |                                 |
| Dermal   | DNEL Longterm System    | 5 mg/kg bw/day (Worker)         |
| Inhalative                                     | DNEL Longterm System    | 4.41 mg/m <sup>3</sup> (Worker) |
| <b>123-54-6 pentane-2,4-dione</b>              |                         |                                 |
| Dermal   | DNEL Longterm System    | 12 mg/kg bw/day (Worker)        |
| Inhalative                                     | DNEL Longterm System    | 84 mg/m <sup>3</sup> (Worker)   |
| <b>7722-84-1 hydrogen peroxide solution</b>    |                         |                                 |
| Inhalative                                     | DNEL Longterm Local     | 1.4 mg/m <sup>3</sup> (Worker)  |
| · PNECs  |                         |                                 |
| <b>123-42-2 4-hydroxy-4-methylpentan-2-one</b> |                         |                                 |
| PNEC Marinewater sed                           | 0.74 mg/kg sed dw       |                                 |
| PNEC Freshwater                                | 2 mg/l (AF 50)          |                                 |
| PNEC Freshwater sed                            | 7.4 mg/kg sed dw        |                                 |
| PNEC Soil                                      | 0.31 mg/kg soil dw      |                                 |
| PNEC STP                                       | 100 mg/l (AF 10)        |                                 |
| PNEC Marinewater                               | 0.2 mg/l (AF 500)       |                                 |
| <b>13784-51-5 2,4-Pentadione, peroxide</b>     |                         |                                 |
| PNEC Marinewater sed                           | 0.153 mg/kg sed dw (-)  |                                 |
| PNEC Freshwater                                | 0.17 mg/l (AF 10)       |                                 |
| PNEC Freshwater sed                            | 1.53 mg/kg sed dw (-)   |                                 |
| PNEC Soil                                      | 0.2 mg/kg soil dw (-)   |                                 |
| PNEC STP                                       | 6.2 mg/l (AF 10)        |                                 |
| PNEC Marinewater                               | 0.017 mg/l (AF 100)     |                                 |
| <b>123-54-6 pentane-2,4-dione</b>              |                         |                                 |
| PNEC Marinewater sed                           | 0.191 mg/kg sed dw      |                                 |
| PNEC Freshwater                                | 0.2 mg/l (AF 50)        |                                 |
| PNEC Freshwater sed                            | 1.909 mg/kg sed dw      |                                 |
| PNEC Soil                                      | 0.193 mg/kg soil dw (-) |                                 |
| PNEC STP                                       | 1.32 mg/l (AF 10)       |                                 |
| PNEC Marinewater                               | 0.02 mg/l (AF 500)      |                                 |
| <b>7722-84-1 hydrogen peroxide solution</b>    |                         |                                 |
| PNEC Marinewater sed                           | 0.047 mg/kg sed dw      |                                 |
| PNEC Freshwater                                | 0.013 mg/l (AF 50)      |                                 |
| PNEC Freshwater sed                            | 0.047 mg/kg sed dw      |                                 |
| PNEC Soil                                      | 0.002 mg/kg soil dw     |                                 |
| PNEC STP                                       | 4.66 mg/l (AF 100)      |                                 |
| PNEC Marinewater                               | 0.013 mg/l (AF 50)      |                                 |

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls**

No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid close or long term contact with the skin.  
 Avoid contact with the eyes and skin.  
 Do not eat, drink, smoke or sniff while working.  
 Use skin protection cream for skin protection.  
 Be sure to clean skin thoroughly after work and before breaks.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated.



Filter A2

· **Hand protection**

Only use chemical-protective gloves with CE-labelling of category III.



Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Protective gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Butyl rubber, BR  
Fluorocarbon rubber (Viton)  
Nitrile rubber, NBR  
Neoprene

· **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:**



Protective work clothing

## SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

|   |                        |
|---|------------------------|
| · <b>Physical state</b>   | Fluid                  |
| · <b>Colour:</b>  | Colourless             |
| · <b>Odour:</b>   | Characteristic         |
| · <b>Odour threshold:</b>   | Not determined.        |
| · <b>Melting point/freezing point:</b>                            | Not applicable.        |
| · <b>Boiling point or initial boiling point and boiling range</b> | Not applicable.        |
| · <b>Flammability</b>   | May cause fire.        |
| · <b>Lower and upper explosion limit</b>                          |                        |
| · <b>Lower:</b>   | Not determined.        |
| · <b>Upper:</b>   | Not determined.        |
| · <b>Flash point:</b>   | > SADT                 |
| · <b>Decomposition temperature:</b>                               | +60 °C (SADT)          |
| · <b>pH</b>   | Not determined.        |
| · <b>Viscosity:</b>   |                        |
| · <b>Kinematic viscosity</b>                                      | Not determined.        |
| · <b>Dynamic at 20 °C:</b>  | 12 - 49 mPas           |
| · <b>Solubility</b>   |                        |
| · <b>water:</b>   | Undetermined.          |
| · <b>Partition coefficient n-octanol/water (log value)</b>        | not determined         |
|   | Not determined.        |
| · <b>Vapour pressure:</b>   | Not determined.        |
| · <b>Density and/or relative density</b>                          |                        |
| · <b>Density at 20 °C:</b>  | 1.03 g/cm <sup>3</sup> |
| · <b>Relative density</b>   | Not determined.        |
| · <b>Vapour density</b>   | Not determined.        |

· **9.2 Other information**

|  |   |
|--|---|
| · <b>Appearance:</b>   |   |
| · <b>Form:</b>   | Fluid   |
| · <b>Important information on protection of health and environment, and on safety.</b> |   |
| · <b>Ignition temperature:</b>   | Product is not selfigniting.  |
| · <b>Explosive properties:</b>   | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Change in condition</b>   |   |
| · <b>Evaporation rate</b>  | Not determined.   |
| · <b>Information with regard to physical hazard classes</b>                            |   |
| · <b>Explosives</b>  | Void  |
| · <b>Flammable gases</b>   | Void  |

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|   |                           |
|---|---------------------------|
| · Aerosols  | Void                      |
| · Oxidising gases   | Void                      |
| · Gases under pressure  | Void                      |
| · Flammable liquids   | Void                      |
| · Flammable solids  | Void                      |
| · Self-reactive substances and mixtures                                     | Void                      |
| · Pyrophoric liquids  | Void                      |
| · Pyrophoric solids   | Void                      |
| · Self-heating substances and mixtures                                      | Void                      |
| · Substances and mixtures, which emit flammable gases in contact with water | Void                      |
| · Oxidising liquids   | Void                      |
| · Oxidising solids  | Void                      |
| · Organic peroxides   | Heating may cause a fire. |
| · Corrosive to metals   | Void                      |
| · Desensitised explosives   | Void                      |
| · Other safety characteristics  |                           |
| · Active oxygen   | 4.0 - 4.4 %               |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by decomposition at and above the temperature. Contact with incompatible substances can cause decomposition at or below the SADT.  
No decomposition if used and stored according to specifications.  
To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions** Self-accelerating decomposition at SADT.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).
- **10.6 Hazardous decomposition products:** Hydrocarbons, carbon dioxide and -monoxide.  
No hazardous decomposition products if used and stored according to specifications.
- **Additional information:** Emergency procedures will vary depending on conditions. The customer should have an emergency response plan in place.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

**123-42-2 4-hydroxy-4-methylpentan-2-one**

|      |      |                      |
|------|------|----------------------|
| Oral | LD50 | 3,002 mg/kg (rattus) |
|------|------|----------------------|

**13784-51-5 2,4-Pentadione, peroxide**

|      |      |                       |
|------|------|-----------------------|
| Oral | LD50 | >2,000 mg/kg (rattus) |
|------|------|-----------------------|

**123-54-6 pentane-2,4-dione**

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | 575 mg/kg (rattus) |
|------|------|--------------------|

|        |      |                    |
|--------|------|--------------------|
| Dermal | LD50 | 790 mg/kg (rattus) |
|--------|------|--------------------|

|            |           |                   |
|------------|-----------|-------------------|
| Inhalative | LC50 / 4h | 5.1 mg/l (rattus) |
|------------|-----------|-------------------|

- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

Trade name: **PEROXAN A-40 L**

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**SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****13784-51-5 2,4-Pentadione, peroxide**

EC50 / 72h 5.4 mg/l (alga (Süßwasser))

LC50 / 96h 67.7 mg/l (piscis)

EC50 / 48h 7.1 mg/l (daphnia magna)

**123-54-6 pentane-2,4-dione**

LC50 / 96h 72 mg/l (oncorhynchus mykiss)

EC50 / 48h 75 mg/l (daphnia magna)

· **12.2 Persistence and degradability**· **Degree of elimination:**· **Classification:****123-42-2 4-hydroxy-4-methylpentan-2-one**

Degradation (Readily biodegradable) (OECD 301 A)

**13784-51-5 2,4-Pentadione, peroxide**

Degradation (Readily biodegradable) (OECD 301 D)

**123-54-6 pentane-2,4-dione**

Degradation (Readily biodegradable) (OECD 301 C)

**7722-84-1 hydrogen peroxide solution**

Degradation (Readily biodegradable)

· **12.3 Bioaccumulative potential**· **Partition coefficient: nOctanol/water: [Log Kow]**

|            |                                |              |
|------------|--------------------------------|--------------|
| 123-42-2   | 4-hydroxy-4-methylpentan-2-one | -0,09 (20°C) |
| 13784-51-5 | 2,4-Pentadione, peroxide       | 1,1 (20°C)   |
| 123-54-6   | pentane-2,4-dione              | 0,68 (20°C)  |
| 7722-84-1  | hydrogen peroxide solution     | -1,57 (20°C) |
| 102-82-9   | tributylamine                  | 3,34 (25 °C) |

· **12.4 Mobility in soil**

No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**· **PBT:**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH, annex XIII.

· **vPvB:**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH, annex XIII.

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**· **Additional ecological information:**· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation**

After diluting with a suitable desensitisation agent to 10 %, the solution must be supplied to a special treatment (e. g. thermal utilization) under observance of all official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Waste disposal key:**

Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-number.

· **Uncleaned packaging:**· **Recommendation:**

This material and its container must be disposed of as hazardous waste.

**SECTION 14: Transport information**· **14.1 UN number or ID number**· **ADR, IMDG, IATA**



UN3105

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|   |  |
|---|--|
| · 14.2 UN proper shipping name<br>· ADR   | UN3105 ORGANIC PEROXIDE TYPE D, LIQUID (ACETYL ACETONE PEROXIDE)   |
| · IMDG, IATA  | ORGANIC PEROXIDE TYPE D, LIQUID (ACETYL ACETONE PEROXIDE)  |
| · 14.3 Transport hazard class(es)<br>· ADR  |  |
|                  |  |
| · Class<br>· Label  | 5.2 (P1) Organic peroxides.<br>5.2   |
| · IMDG, IATA  |  |
|                  |  |
| · Class<br>· Label  | 5.2 Organic peroxides.<br>5.2  |
| · 14.4 Packing group<br>· ADR, IMDG, IATA   | Void   |
| · 14.5 Environmental hazards:   | Not applicable.  |
| · 14.6 Special precautions for user<br>· Stowage Category<br>· Stowage Code<br>· Segregation Code | Warning: Organic peroxides.<br>D<br>SW1 Protected from sources of heat.<br>SG35 Stow "separated from" SGG1-acids<br>SG36 Stow "separated from" SGG18-alkalis.<br>SG72 See 7.2.6.3.2. |
| · 14.7 Maritime transport in bulk according to IMO instruments                                    | Not applicable.  |
| · Transport/Additional information:   |  |
| · ADR<br>· Limited quantities (LQ)<br>· Excepted quantities (EQ)                                  | 125 ml<br>Code: E0<br>Not permitted as Excepted Quantity   |
| · Transport category<br>· Tunnel restriction code   | 2<br>D   |
| · RID / GGVSEB:   | like ADR   |
| · IMDG<br>· Limited quantities (LQ)<br>· Excepted quantities (EQ)                                 | 125 ml<br>Code: E0<br>Not permitted as Excepted Quantity   |

### SECTION 15: Regulatory information

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

· Poisons Act

· Regulated explosives precursors

|  |     |
|--|-----|
| 7722-84-1   hydrogen peroxide solution | 12% |
|--|-----|

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

· Directive 2012/18/EU

· Named dangerous substances

- ANNEX I

None of the ingredients is listed.

· Seveso category

P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

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- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

|   |
|---|
| · <b>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</b> |
| None of the ingredients is listed.  |

|   |
|---|
| · <b>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</b> |
| None of the ingredients is listed.  |

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| · <b>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</b> |
| None of the ingredients is listed.                   |

|   |
|---|
| · <b>Regulation (EC) No 273/2004 on drug precursors</b> |
| None of the ingredients is listed.                      |

|   |
|---|
| · <b>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</b> |
| None of the ingredients is listed.  |

- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Please note:** Take care of the respective local regulations.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  - H226 Flammable liquid and vapour.
  - 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.
  - H317 May cause an allergic skin reaction.
  - H318 Causes serious eye damage.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
- **Contact:**
  - Tel: +49 2871 9902-0
  - E-mail: mail@pergan.com
- **Abbreviations and acronyms:**
  - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - DNEL: Derived No-Effect Level (UK REACH)
  - PNEC: Predicted No-Effect Concentration (UK REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Flam. Liq. 3: Flammable liquids – Category 3
  - Ox. Liq. 1: Oxidizing liquids – Category 1
  - Org. Perox. D: Organic peroxides – Type C/D
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Corr. 1A: Skin corrosion/irritation – Category 1A
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - Skin Sens. 1: Skin sensitisation – Category 1

- **\* Data compared to the previous version altered.**