

**1. Identification of the substance/preparation and of the company****Trade name**

CHP-curing agent for Polyester Filler Spray

**Use of the substance / preparation**

Curing agent for polyester filler and polyester resin

**Manufacturer / marketer identification**VOSSCHEMIE GmbH  
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Information provided by: Laboratory /

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**Emergency information:**Giftinformationszentrum(GIZ)-Nord, Göttingen  
Telephone Numbers: +49-551-19240, +49-551-383180**Distributor in New Zealand**R A Johnstone & Co Ltd  
739 Great South Road, Otahuhu  
PO Box 97 948 SAMC. Manukau 2240  
Auckland. New Zealand  
Ph :+64 9 261 0333  
Fax:+64 9 261 0330  
www.raj.co.nz**Emergency telephone in New Zealand  
National Poison Center(24 hours):  
0800 POISON [764 766]****2. Composition/information on ingredients****Chemical characterization****Description**

Cyclohexanone peroxide in stabiliser and ethyl acetate

**Dangerous components**

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CAS No.	EC No	content unit	danger symbol	R phrases
Identification according to EEC Directive				
Classification				

12262-58-7	235-527-7	15 - 20 %	E,C	R02, R22, R34
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BIS(1-HYDROXYCYCLOHEXYL)-PEROXID  
E, R02  
Xn, R22  
C, R34

141-78-6	205-500-4	ca 50 %	F,Xi	R11, R36, R66, R67
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ETHYL ACETATE  
F, R11  
Xi, R36  
R66  
R67

123-42-2	204-626-7	15 - 20 %	Xi	R36
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4-HYDROXY-4-METHYLPENTAN-2-ONE  
Xi, R36

108-94-1	203-631-1	< 5 %	Xn	R10, R20
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CYCLOHEXANONE  
R10



Xn, R20

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7722-84-1 231-765-0 < 5 % O,C R05, R08,  
R20/22, R35

HYDROGEN PEROXIDE SOLUTION ...%

O, R08

C, R35

Xn, R20/22

R05

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Full text of R-Phrases: see under section 16.

### 3. Hazards identification

May cause fire.

The HSNO Approval Number for this Group Standard is [HSR002630](#)

Harmful if swallowed.

Causes burns.

Risk of serious lesions to the eyes.

Vapours may cause drowsiness and dizziness

Highly flammable and oxidising.

Danger of fire in case of contact with combustible or other substances promoting decomposition.

Thermal decomposition at temperatures higher than 50 °C, see also point 10.

### 4. First aid measures

#### First aid measures / general indications

Remove contaminated clothes without delay.

Eyeshower or eye-washing flasks must be available at work.

In case of eyes contact: rinse immediately with plenty of water, for at least 15 minutes, then call for a doctor. Do not use any oily or fatty substances.

After skin contact: remove mechanically, then wash with water and soap, rinse thoroughly and apply lanolin-based ointment.

After ingestion: rinse the mouth, drink water, then refer immediately for medical attention.

After inhalation: take the patient out of the dangerous area then refer immediately for medical attention.

### 5. Fire-fighting measures

#### Appropriate extinguishing media

Water spray, foam, powder (dry chemical) (only for small fires)

## 6. Accidental release measures

Do not let this product enter into soil, water and drains.  
Remove sources of ignition, provide sufficient ventilation.  
Keep unauthorised persons at a distance.  
Remove with an inert, non combustible absorbing agent, if needed store in a clean cask with a loose lid, and destroy as soon as possible according to the Waste Disposal provisions.  
Refer to points 8 and 13.

## 7. Handling and storage

### Handling

This product is sensitive to heat and many foreign substances, in particular accelerators. See also point 10. Containers are to be opened and manipulated cautiously. Follow clean work procedures. Close containers immediately after drawing out product.

Never mix with the accelerator. When using polyester resin, this product must be dosed and mixed separately.

Never store peroxides in a confined space, so that no dangerous built-up can take place after possible decomposition.

Do not expose to incompatible substances and high temperature. See also point 10. Do not smoke, do not expose to open flame, sources of heat and/or ignition. Ventilate well.

Do not expose to direct sunlight.

Thermal decomposition is possible at temperatures higher than 50°C, involving formation of explosive gases/vapours.

Take measures against explosion. Earth when emptying and filling cask.

### Storage

Store only in original, closed containers, away from other substances. Storage temperature max. +25 °C.

## 8. Exposure controls/personal protection

Components for which limit values for exposure at the place of work exist (Germany):

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Identification according to EEC Directive

CAS No	EC No	limit value
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#### ETHYL ACETATE

141-78-6	205-500-4	MAK-Grenzwert	400	ml/m3
		MAK-Grenzwert	1500	mg/m3

Danger of developmental toxic effects must not be feared as long as MAK- and BAT-limit values are not exceeded.

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#### 4-HYDROXY-4-METHYLPENTAN-2-ONE

123-42-2	204-626-7	MAK-Grenzwert	20	ml/m3
		MAK-Grenzwert	96	mg/m3

H skin penetrative

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## CYCLOHEXANONE

108-94-1	203-631-1	MAK-Grenzwert	20	ppm
		MAK-Grenzwert	80	mg/m3

H skin penetrative

Danger of developmental toxic effects must not be feared as long as MAK- and BAT-limit values are not exceeded.

## HYDROGEN PEROXIDE SOLUTION ...%

7722-84-1	231-765-0	MAK-Grenzwert	1,0	ppm
		MAK-Grenzwert	1,4	mg/m3

## Personal protection

## Respiratory protection

Provide good ventilation.

Respiration filter in case of higher concentrations or insufficient ventilation.

Recommended: filter type A, colour brown.

## Hand protection

+ Use skin protective barrier cream

+ Use protective gloves.

+ Recommended:

+ Butyl rubber

+ The resistance of the protective gloves to chemicals should be ascertained with the respective supplier. Specific conditions at workplace should be taken to consideration.

## Eye protection

Use tightly fitting safety goggles.

Provide eyeshowers/eye washing flasks at the place of work.

## General measures of precaution

Protective clothing.

## Additional measures

Apply a suitable skin protective agent before work.

Do not eat, drink or smoke during work.

Wash hands before pauses and when ending work.

Remove contaminated clothes immediately.

Store working clothes separately.

## 9. Physical and chemical properties

## Appearance

Form : liquid

Colour : colourless

Odour : like ethyl acetate

## Security-relevant data

## Boiling temperature

Reference value	From	To	
ca.	77		°C

Method: (Literature for ethyl acetate)

Flash point: -4 °C

Method : (Literature for ethyl acetate)

Ignition temperature : 460 °C  
Method : (Literature for ethyl acetate)

Lower explosion limit: 2.1 % vol  
Method : (Literature for ethyl acetate)

Upper explosion limit: 11.5 % vol  
Method : (Literature for ethyl acetate)

Density at: 20°C ca. 1 g/cm<sup>3</sup>  
Method :

Solubility in water:  
at 20°C 86 g/l  
Method : (Literature for ethyl acetate)

PH value: slightly acid

#### Additional data

The physical data refer to the security relevant component(s) as used, approximate values are given.

## 10. Stability and reactivity

#### Dangerous reactions

Stable only with inert materials. Thermal decomposition or direct contact with foreign matters/impurities, including reducing agents (e.g. amine accelerators), heavy metals compounds (particularly cobalt accelerators), acids and bases, can lead to dangerous, autoaccelerating decomposition reactions, which may result in explosion or fire.  
Explosive mixtures of vapours and air are easily formed

#### Hazardous decomposition products

Decomposition may result in various organic decomposition products being formed as well as evolution of flammable and explosive vapours/gases.  
Among others: carbon dioxide, hexanoic acid, dodecanedicarboxylic acid, cyclohexanone.

#### Thermal decomposition

50°C (accumulated heat), SADT

## 11. Toxicological information

Irritating to the skin, corrosive to the eye.  
High concentrations of ethylacetate in the product have a narcotic effect.

Literature values on ethylacetate:

LD 50, oral, rat: 5620 mg/kg

LC 50, inhalation, rat: 1600 ppm

The following is known on pure cyclohexanone peroxide:

LD 50 (acute, oral, mouse): 880 mg/kg

The following is known on 1,1-Dihydroperoxycyclohexane, in 21 % solution:

LD 50 (oral, rat): 1155 mg/kg

LC 50 (inhalation, rat, 4 h): > 5 ppm

## 12. Ecological information

Do not let enter into water or sewer.

The following is known on cyclohexanon peroxide stabilised with 10 % water:

Acute bacterial toxicity  
(activated inoculum, respiration inhibition test):  
EC 50 = 11,1 mg/l

Acute fish toxicity (Zebra fish):  
LC 50 = 48 mg/l  
NOEC value = 19 mg/l

Biodegradability (closed bottle test): readily biodegradable

## 13. Advice on disposal

Disposal / product

Do not dispose with domestic waste.

Empty packaging and residue are to be taken to the special waste collection point.

Waste code no. / name of waste (only for Germany)

16 05 06 Laborchemikalien, die aus gefährlichen Stoffen bestehen oder solche enthalten, einschliesslich Gemische von Lab

The waste codes quoted are only recommendations. Other waste codes may also be possible with regard to different regional regulations.

## 14. Transport information

Land transport / lorry / international / comments

UN-No.: 3105  
Organisches Peroxid Type D, flüssig - Cyclohexanonperoxid  
ADR/RID-GGVS/E: 5.2 /

Inland waterway transport / comments

ADN/ADNR non communicated

Sea transport / comments

UN-No.: 3105  
Organic peroxide type D, liquid, cyclohexanone peroxide  
IMDG/GGVSee: 5.2 /  
EMS: F-J, S-R  
Marine pollutant:

Air transport / comments

UN-No.: 3105  
Organic peroxide type D, liquid, cyclohexanone peroxide  
ICAO/IATA-DGR: 5.2 /



## 15. Regulatory information

Labelling The HSNO Approval Number for this Group Standard is HSR002630

Contains:

CYCLOHEXANONE PEROXIDE

ETHYL ACETATE

4-HYDROXY-4-METHYLPENTAN-2-ONE

Symbol and indication of danger

C Corrosive

F Highly flammable

O Oxidising

R phrases

R 34 Causes burns

R 11 Highly flammable

R 07 May cause fire

R 67 Vapours may cause drowsiness and dizziness

S phrases

S 01/02 Keep locked up and out of reach of children

S 03/07 Keep container tightly closed in a cool place.

S 14 Keep away from dirt, rust, chemicals, particularly reducing substances, acids, bases, amines and heavy metals bounded substances (accelerator, dessicating abents, metallic soaps).

S 50 Do not mix with reductors or accelerators.

S 23 Do not breathe vapour/spray

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 33 Take precautionary measures against static discharges

S 29 Do not empty into drains

S 16 Keep away from sources of ignition - No smoking

### National regulations (D)

The legal regulations for limited employment, e.g. the law for the protection of youth work and the decree for the legal protection of motherhood, have to be observed.

Class of danger to water (WGK):

2 (VwVwS, Anh.4 vom 17.Mai 1999)

Consult the technical leaflets by BG-Chemie (Employment Accident Insurance Fund for the Chemical Industry)

M 001 ``Organische Peroxide``

M 023 ``Polyester- und Epoxid-Harze``.

## 16. Other information

### Relevant R phrases

R 02	Risk of explosion by shock, friction, fire or other sources of ignition
R 05	Heating may cause an explosion
R 07	May cause fire
R 08	Contact with combustible material may cause fire
R 10	Flammable
R 11	Highly flammable
R 20	Harmful by inhalation
R 20/22	Harmful by inhalation and if swallowed
R 22	Harmful if swallowed
R 34	Causes burns
R 35	Causes severe burns
R 36	Irritating to eyes
R 66	Repeated exposure may cause skin dryness or cracking
R 67	Vapours may cause drowsiness and dizziness

\* + Data changed compared with the previous version.

Sections where no data are entered indicate that no data are known, or no experience is available. This does not justify the assumption that no danger can arise from the relevant point under consideration.

The information given is based on the current state of our knowledge and experience. The safety data sheet describes products with regard to safety requirements. The data do not represent a guarantee of properties.

This product may only be used according to its foreseen aim.

All persons in contact with organic peroxides should be duly informed about their safe use, in order to avoid accidents.