

Product H2O2 Decontamination Reagent  
Code: MCO-H2O2-PE  
Supersedes: Version 3, dated January 2014 Version: 4

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Date Prepared: July 2018

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1. Product identifier H2O2 Decontamination Reagent  
Synonyms 6% Hydrogen Peroxide Solution
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Uses: Decontamination Reagent  
Not to be used for: All other uses
- 1.3. Details of the supplier of the safety data sheet  
PHC Corporation  
1-1-1 Sakada, Oizumi-machi, Ora-gun,  
Gunma 370-0596  
Japan  
Tel: +81 (0)276 61 5362  
Fax: +81 (0)276 61 9518  
+81 (0)276 61 5362
- Emergency telephone no.

**SECTION 2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

CLP Classification	DPD Classification
Eye Irritant Category 2 - H319	Irritating to eyes Xi - R36
For full wording of Hazard statements see Section 16	For full wording of Risk phrases see Section 16

**2.2. Label elements****WARNING**

H319 - Causes serious eye irritation



P102 - Keep out of reach of children

P220 - Keep away from clothing combustible materials

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

P337+P313 - If eye irritation persists: Get medical advice / attention

Contains: Hydrogen peroxide

2.3. Other hazards None known

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

Hazardous component(s)

Under CLP EC1272/2008

Ingredient	CAS/EC Number	REACH Registration Number	%	CLP Hazard Category	H Statements
Hydrogen peroxide *	7722-84-1 / 231-765-0	01-2119485845-22	6	Ox. Liq. 1 Acute Tox. 4 Acute Tox. 4 Skin Corr. 1A	H271 H332 H302 H314

\* Has WEL, see Section 8

For full wording of H-statements see Section 16.

Under DPD EC1999/45

Ingredient	CAS/EC Number	REACH Registration Number	%	Symbol	Risk Phrases
Hydrogen peroxide *	7722-84-1 / 231-765-0	01-2119485845-22	6	O, C	5-8-20/22-35

\* Has WEL, see Section 8

For full wording of Risk phrases see Section 16.

**SECTION 4. FIRST-AID MEASURES****4.1. Description of first aid measures**

Inhalation

Remove patient to fresh air, allow to rest and keep warm.

Seek medical attention if symptoms develop.

Skin contact

Wash immediately with plenty of water. Remove any contaminated clothing and laundry before reuse. Seek medical attention if symptoms develop.

Eye contact

Flush immediately with plenty of water for at least 15 minutes, keeping eyelids open. Seek medical attention.

Ingestion

DO NOT induce vomiting! Rinse mouth out with water, but do not give anything to drink. Seek medical attention if symptoms develop.

Personal precautions

Ensure that those giving first aid treatment do not get contaminated by product spills, etc. Wear suitable protective clothing, gloves, safety goggles. See also Section 8.

**4.2. Most important symptoms and effects, both acute and delayed**

Irritating to eyes.

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

None other than above.

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## SECTION 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

- Suitable

Product is not combustible. Use media suitable for surrounding materials.

- Not to be used

None.

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

None other than those expected from normal materials of construction.

### 5.3. Advice for fire fighters

Precautions as required for surrounding fire.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Wear suitable protective clothing, gloves, safety goggles. See Section 8 for details.

### 6.2. Environmental precautions

Prevent large volumes from entering sewers or the immediate environment. In case of large spill, inform local authorities and Environment Agency.

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

- on soil

Absorb onto inert, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Transfer to secure container for safe disposal. See Section 13.

- on water

None known.

### 6.4. Reference to other sections

See Section 8 for details of protective equipment. See Section 13 for details of disposal.

## SECTION 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes. Do not ingest or inhale vapours or spray.

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

Keep in original containers. Keep refrigerated ( $4\pm 2^{\circ}\text{C}$  to  $15\pm 2^{\circ}\text{C}$ ), but do not allow to freeze.

### 7.3. Specific end use(s)

Decontamination Reagent.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

Country	TWA 8hr		STEL 15mins		Reference
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
EU	None set				ILV or IOELV
UK	1	1.4	2	2.8	EH40

Monitoring procedures

None specified

**8.2. Exposure Controls**

Recommended engineering controls

Ensure good ventilation. Arrange for eye wash possibility.

Personal protection

Always check applicability with your supplier of protective equipment.

- Respiratory protection Not required.
- Skin protection Laboratory coat or overalls
- Eye protection Splash-proof glasses or chemical goggles
- Hand protection Neoprene, latex, vinyl PVC or butyl rubber gloves should be suitable. However, since glove performance is governed by many variables, it is strongly recommended that specialist advice on the selection and use of protective gloves is sought. Note: Break-through times can vary depending on thickness, use and source. Change gloves regularly.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Clear, colourless liquid
Odour	Odourless
Odour Threshold Value	Not applicable
pH (concentrated product)	4 approx
Melting point (°C)	Approx 0
Boiling point/range (°C)	Approx 100
Flash point (Pensky Martens) (°C)	Not flammable
Flammability	Not flammable
Evaporation rate	Not determined
Explosive properties/limits	None
Vapour pressure (mm Hg at 35°C)	Not determined
Vapour density	Not determined
Density at 20°C (kg/m <sup>3</sup> )	1000
Solubility in water (% by weight)	Completely miscible

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Solubility in solvents	Not determined
Partition coefficient (log $K_{ow}$ )	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity (mPa.s at 20°C)	Not determined
Oxidising properties	Weak oxidising agent

### 9.2. Other information

*Note: These are typical values and do not constitute a specification.*

## SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity	Stable under normal conditions of use and storage.
10.2. Chemical stability	Stable under normal conditions of use.
10.3. Possibility of hazardous reactions	Reacts with combustible materials and strong reducing agents.
10.4. Conditions to avoid	High temperatures and exposure to UV light.
10.5. Incompatible materials	Strong reducing agents, Brass, Copper, Copper alloys, Powdered metals, Iron and iron salts.
10.6. Hazardous decomposition products	Oxygen may be released on burning or heating to decomposition.

## SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects	Numerical data for active ingredient hydrogen peroxide unless otherwise stated.
(a) acute toxicity	LD <sub>50</sub> (oral, rat): 1193-1270 mg/kg (35% solution) LD <sub>50</sub> (dermal, rabbit): > 4000 mg/kg (50% solution) LC <sub>50</sub> (inhalation, rat, 4hr): 2 mg/m <sup>3</sup> (100%) At this strength classifies under EU rules as Harmful by inhalation. May be mildly irritating to the mouth and throat.
(b) skin corrosion/irritation	Reason for no classification: conclusive evidence but not sufficient for classification. May be irritating to skin, especially if concentrated.
(c) serious eye damage/irritation	Irritating to eyes.
(d) respiratory or skin sensitisation	Reason for no classification: conclusive evidence but not sufficient for classification.
(e) germ cell mutagenicity	Reason for no classification: conclusive evidence but not sufficient for classification.
(f) carcinogenicity	Not sufficient evidence to be considered carcinogenic, IARC group 3.
(g) reproductive toxicity	Reason for no classification: conclusive but not sufficient for classification.

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(h) STOT-single exposure	Reason for no classification: conclusive evidence but not sufficient for classification. Vapours may cause mild, transient irritation if inhaled.
(i) STOT-repeated exposure	Reason for no classification: conclusive but not sufficient for classification.
(j) aspiration hazard	Reason for no classification: conclusive but not sufficient for classification.
Likely routes of exposure	Contact with skin and eyes or inhalation of vapours.
Symptoms related to the physical, chemical and toxicological characteristics	Irritating to eyes.
Delayed and immediate effects as well as chronic effects from short and long-term exposure	None known.
Other information	None

## SECTION 12. ECOLOGICAL INFORMATION

<b>12.1. Toxicity</b>	No data available on product. Data for concentrated hydrogen peroxide as follows:
- LC <sub>50</sub> , Pimephales promelas, 96hr (mg/l)	16.4
- EC <sub>50</sub> , Daphnia pulex, 48hr (mg/l)	2.4
- IC <sub>50</sub> , Algae, 72hr (mg/l)	2.5
<b>12.2. Persistence and degradability</b>	
Decomposes to water and oxygen. Rapidly hydrolysed in the environment (half life in fresh water 8-31 hrs; in sewage minutes to hours; in sludge a few seconds) and is therefore expected to have little toxic effect in the environment.	
<b>12.3. Bioaccumulative potential</b>	
Not potentially bio-accumulative.	
<b>12.4. Mobility in soil</b>	
Adsorption to solid soil phase is not expected.	
<b>12.5. Results of PBT and vPvB assessment</b>	
Does not fulfil the criteria for classification as PBT or vPvB.	
<b>12.6. Other adverse effects</b>	
Hydrogen peroxide	Classified as WGK = 1, water polluting, (Kenn Nr. 288) by the German Water Pollution Commission

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**SECTION 13. DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

Disposal of product

Dispose of as Hazardous Waste, via a licensed contractor ensuring that all national and local authority requirements are complied with.

Disposal of packaging

Contaminated packing should be disposed of as Hazardous Waste, as above, according to local authority guidelines. Washed and decontaminated packing should be disposed of as Controlled Waste.

**SECTION 14. TRANSPORT INFORMATION**

Not classified as dangerous for transport.

14.1. UN number None

14.2. UN proper shipping name None

14.3. Transport hazard class(es) None

14.4. Packing group None

14.5. Environmental hazards None

14.6. Special precautions for user See S-phrases in Section 2

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
Not transported in bulk

**SECTION 15. REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

For UK

Control of Substances Hazardous to Health Regulations 2002

Hazardous Waste Regulations 2005

Health and Safety at Work etc. Act 1974

All as amended from time to time.

For other countries refer to local regulations.

**15.2. Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out on this mixture.

**SECTION 16. OTHER INFORMATION**

Inventories - Listed in EINECS, TSCA and all major national inventories.

Sources of data used in this SDS

In-house data files

Literature such as Sax's Dangerous Properties of Industrial Materials, the RSC Dictionary of Substances and their Effects, RTECS

German KbwS

CLP Annex VI Tables 3.1 &amp; 3.2



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Version number	4
Date prepared	July 2018
Supersedes Version	3
Revisions marked with   in the left margin.	See Section 2.1, 2.2, 3.2 and below.
Nature of revision	Modified to CLP classification and labelling.

## | H-statements used in Section 3

H271	May cause fire or explosion; strong oxidiser
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled

## | R-phrases used in Section 3

R5	Heating may cause an explosion
R8	Contact with combustible material may cause fire
R20/22	Harmful by inhalation and if swallowed
R35	Causes severe burns

Based on EU Regulation 1907/2006 as amended by Regulation 453/2010

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*The information contained herein is based on several references and the present state of our knowledge. However, the SDS does not always cover all information about the product, handle the product carefully. The information is intended to apply to ordinary usage, in case of uses other than those noted in Section 1 above, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee of the properties of the product.*

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