

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Date of issue: 20.09.2011

Version 1.0

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

1.1 Product identifier

Catalogue No. 107209
Product name Hydrogen peroxide 30% (Perhydrol®) for analysis EMSURE® ISO
REACH Registration Number This product is a mixture. REACH Registration Number see chapter 3.

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

Identified uses Reagent for analysis
For additional information on uses please refer to the Merck Chemicals portal (www.merck-chemicals.com).

1.3 Details of the supplier of the safety data sheet

Company Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0
Responsible Department Head of Operations * (03) 9728 7600 * Monday through Friday, 8:00am to 5:00pm (EST)
Regional representation Merck Pty. Limited
ABN 25 005 064 791
207 Colchester Road
Kilsyth, Vic 3137, Australia
www.merck-chemicals.com.au

1.4 Emergency telephone number

+61 (0) 3 9728 7600
After hours: CHEMCALL 1800 127 406
Poisons Information Centre : 13 1126

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4, Oral, H302
Serious eye damage, Category 1, H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification (67/548/EEC or 1999/45/EC)

Xn	Harmful	R22
Xi	Irritant	R41

For the full text of the R-phrases mentioned in this Section, see Section 16.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
Product name Hydrogen peroxide 30% (Perhydrol®) for analysis EMSURE® ISO

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Danger

Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

Precautionary statements

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.

P313 Get medical advice/ attention.

Reduced labelling (≤125 ml)

Hazard pictograms



Signal word

Danger

Hazard statements

H318 Causes serious eye damage.


Precautionary statements

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.

P313 Get medical advice/ attention.

Labelling (67/548/EEC or 1999/45/EC)

Symbol(s)  Xn Harmful

R-phrase(s) 22-41 Harmful if swallowed. Risk of serious damage to eyes.
S-phrase(s) 26-39 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

Reduced labelling (≤125 ml)

Symbol(s)  Xn Harmful

R-phrase(s) 22-41 Harmful if swallowed. Risk of serious damage to eyes.
S-phrase(s) 26-39 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

2.3 Other hazards

None known.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
Product name Hydrogen peroxide 30% (Perhydrol®) for analysis EMSURE® ISO

SECTION 3. Composition/information on ingredients

Chemical nature Aqueous solution

Hazardous components (REGULATION (EC) No 1272/2008)

Chemical Name (Concentration)

CAS-No.	EC-No. / Registration number	Index-No.	Classification
<i>Hydrogen peroxide (31 %)</i>			
7722-84-1	231-765-0 / *)	-	Oxidizing liquid, Category 1, H271 Acute toxicity, Category 4, H332 Acute toxicity, Category 4, H302 Skin corrosion, Category 1A, H314

*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Hazardous components (1999/45/EC)

Chemical Name (Concentration)

CAS-No.	EC-No.	Index-No.	Classification
<i>Hydrogen peroxide (31 %)</i>			
7722-84-1	231-765-0	-	R5 O, Oxidising; R8 Xn, Harmful; R20/22 C, Corrosive; R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Irritation and corrosion, irritant effects, conjunctivitis

Risk of serious damage to eyes.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
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Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Not combustible.
Has a fire-promoting effect due to release of oxygen.

5.3 Advice for firefighters

Special protective equipment for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

Do not empty into drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7.2 and 10.5).

Take up with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Small containers must be emptied within 2 years.

Observe label precautions.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve).

Tightly closed. Protected from light. Away from combustible materials and sources of ignition and heat.

Store at +5°C to +30°C.

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
Product name Hydrogen peroxide 30% (Perhydrol®) for analysis EMSURE® ISO

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Hydrogen peroxide (7722-84-1)

AU OEL	Time Weighted Average (TWA):	1 ppm
		1,4 mg/m ³

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Eye/face protection

Tightly fitting safety goggles

Hand protection

full contact:

Glove material:	natural latex
Glove thickness:	0,6 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 30 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 706 Lapren® (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet(>,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment

protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Environmental exposure controls

Do not empty into drains.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
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SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	slight
Odour Threshold	No information available.
pH	2 - 4 at 20 °C
Melting point	-26 °C
Boiling point/boiling range	107 °C
Flash point	not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	ca. 18 hPa at 20 °C
Relative vapour density	No information available.
Relative density	1,11 g/cm ³ at 20 °C
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	> 100 °C
Viscosity, dynamic	No information available.
Explosive properties	No information available.
Oxidizing properties	The substance or mixture is classified as oxidizing with the subcategory 2.

9.2 Other data

none

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
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SECTION 10. Stability and reactivity

10.1 Reactivity

See section 10.3.

10.2 Chemical stability

heat-sensitive

Sensitivity to light

Stabilizer

2,6-Pyridinedicarboxylic acid

10.3 Possibility of hazardous reactions

Risk of explosion with:

Risk of ignition or formation of inflammable gases or vapours with:

hydrazine and derivatives, hydrides, combustible substances, Ether, anhydrides, Oxidizing agents, Organic Substances, peroxi compounds, Impurities, permanganates, organic solvent, organic nitro compounds, brass, Alkali metals, alkali salts, alkali hydroxides, Alkaline earth metals, acids, metallic oxides, metallic salts, nonmetals, nonmetallic oxides, Aldehydes, Alcohols, Amines, Ammonia, Powdered metals

10.4 Conditions to avoid

Heating.

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

no information available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

LD50 rat: 1.193 - 1.270 mg/kg (35% solution) (IUCLID)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Skin irritation

After long-term exposure to the chemical: Causes skin burns.

Eye irritation

conjunctivitis Risk of serious damage to eyes. Causes eye burns.

Mixture causes serious eye damage.

Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2 Further information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
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SECTION 12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50 Pimephales promelas (fathead minnow): 16,4 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates.

EC50 Daphnia magna (Water flea): 7,7 mg/l; 24 h (IUCLID)

Toxicity to algae

IC50 Chlorella vulgaris (Fresh water algae): 2,5 mg/l; 72 h

OECD Test Guideline 201 (35% solution)

12.2 Persistence and degradability

Biodegradability

Readily biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

Additional ecological information

Biological effects:

No interference with wastewater treatment plants are to be expected when used properly.

Further information on ecology

Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information

ADR/RID

UN 2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II

Environmentally hazardous no

IATA Not permitted for transport

UN 2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Environmentally hazardous no

Environmentally hazardous no

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 107209
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IMDG

UN 2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 (8), II

EmS F-H S-Q

Marine pollutant no

no

The transport regulations ADR/RID, IATA - DGR, IMDG -Code are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

Other regulations

Hazchem Code 2P

SECTION 15. Regulatory information

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

National legislation

Storage class 5.1 B

Standard for the Uniform S6

Scheduling of Medicines and

Poisons - Poisons Schedule

Number:

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

Full text of R-phrases referred to under sections 2 and 3

R 5 Heating may cause an explosion.

R 8 Contact with combustible material may cause fire.

R20/22 Harmful by inhalation and if swallowed.

R22 Harmful if swallowed.

R35 Causes severe burns.

R41 Risk of serious damage to eyes.

Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.
