

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006**Hydrogen peroxide 35 - <50%**Version 3.1
Revision Date 2011/02/09Print Date 2011/02/09
MSDS code: MYYY760**1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : Hydrogen peroxide 35 - <50%
Substance name : hydrogen peroxide solution...%
Index-No. : 008-003-00-9
CAS-No. : 7722-84-1
EC-No. : 231-765-0

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Recommended restrictions on use : At that time we do not yet have information on use restrictions. They will be included in this safety data sheet when available.

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK & Ireland
Albion House, Rawdon Park
GB LS19 7XX Leeds Yeadon
Telephone : 0113 3879 200
Telefax : 0113 3879 280
E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
01865 407333 (N.C.E.C. Culham)

2. Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008****REGULATION (EC) No 1272/2008**

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Hazard class	Hazard category	Target Organs	Hazard statements
Acute toxicity	Category 4		H302
Skin irritation	Category 2		H315
Serious eye damage	Category 1		H318
Specific target organ toxicity - single exposure	Category 3		H335

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Harmful (Xn)Harmful (Xn)	R22
Irritant (Xi)Irritant (Xi)	R41, R37/38

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

Most important adverse effects

- Human Health : See section 11 for toxicological information.
No further information available.
- Physical and chemical hazards : See section 9 for physicochemical information.
No further information available.
- Potential environmental effects : See section 12 for environmental information.
No further information available.

2.2. Label elements**Labelling according to Regulation (EC) No 1272/2008**

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Hazard symbols



Signal word

: Danger

Hazard statements

: H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary statements

Prevention

: P280 Wear protective gloves/ eye protection/ face protection.

Response

: P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308
P310 IF exposed or concerned: Immediately call a POISON CENTER or doctor/ physician.

Hazardous components which must be listed on the label:

|| • hydrogen peroxide solution

2.3. Other hazards

No other information is available.

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3. Composition/information on ingredients**3.1. Substances**

Chemical nature : Aqueous solution

Chemical Name	Identification Number	Amount [%]
hydrogen peroxide solution	Index-No. : 008-003-00-9	>= 35 - < 50
	CAS-No. : 7722-84-1	
	EC-No. : 231-765-0	

4. First aid measures**4.1 Description of first aid measures**

- General advice : Take off all contaminated clothing immediately.
- If inhaled : If unconscious place in recovery position and seek medical advice. Remove to fresh air.
- In case of skin contact : Wash off immediately with plenty of water. If skin irritation persists, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately. If a person vomits when lying on his back, place him in the recovery position.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No further information available.

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Effects : No further information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.
No further information available.

5. Fire-fighting measures

5.1. Extinguishing media

|| Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
The product itself does not burn.

|| Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

|| Specific hazards during fire fighting : The product is not flammable.
Oxygen released on exothermic decomposition may support combustion in case of surrounding fire.
Heating will cause a pressure rise - with risk of bursting

5.3. Advice for firefighters

|| Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Wear appropriate body protection (full protective suit)

|| Further information : Cool closed containers exposed to fire with water spray.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

|| Personal precautions : Use personal protective equipment. Keep away unprotected persons. Avoid contact with skin and eyes. Do not breathe

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II vapours or spray mist. For personal protection see section 8.

6.2 Environmental precautions

II Environmental precautions : Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

II Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal. Flush away residuals with plenty of water.

II Further information : Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

II Advice on safe handling : Do not keep the container sealed. Provide sufficient air exchange and/or exhaust in work rooms. Avoid formation of aerosol. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

II Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Avoid contact with the

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II skin and the eyes. Do not breathe vapours or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

II Requirements for storage areas and containers : Suitable materials for containers: Stainless steel glass Plastic container of HDPE Unsuitable materials for containers: Brass Copper Iron

II Advice on protection against fire and explosion : Not combustible. Oxidizing agent, may cause spontaneous ignition of combustible materials. In concentrations between 20 - 40 %: Liquid with minor oxidizing effect. With catalysts or at elevated temperatures hydrogen peroxide decomposes to water and oxygen.

II Further information on storage conditions : Store in cool place. Keep in a well-ventilated place. Protect against light. Protect from contamination.

II Advice on common storage : Keep away from food, drink and animal feedingstuffs. Keep away from combustible material. Materials to avoid: Reducing agents

II German storage class : 5.1BL Oxidising Liquids

7.3 Specific end uses

Specific use(s) : No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Component: hydrogen peroxide solution

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Other OELs

Regulatory Basis : UK. EH40 Workplace Exposure Limits (WELs)
Regulatory List : EH40 WEL
Value type : Time Weighted Average (TWA):
Value : 1 ppm
Value : 1.4 mg/m³

Regulatory Basis : UK. EH40 Workplace Exposure Limits (WELs)
Regulatory List : EH40 WEL
Value type : Short Term Exposure Limit (STEL):
Value : 2 ppm
Value : 2.8 mg/m³

8.2. Exposure controls

Engineering measures

|| Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

|| Advice : Use respirator with appropriate filter if vapours or aerosol are released.
Combination filter:NO-P3

Hand protection

|| Advice : Wear suitable gloves.
The following materials are suitable:
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first signs of wear.

Material : butyl-rubber

Gloves : \geq 8 h

Glove thickness : 0.5 mm

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Material : natural rubber
Gloves : ≥ 8 h
Glove thickness : 0.5 mm

Material : polychloroprene
Gloves : ≥ 8 h
Glove thickness : 0.5 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Wear suitable protective clothing.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : liquid
Colour : colourless
Odour : odourless
Odour Threshold : Currently we do not have any Information from our supplier about this.
pH : 2 - 4
20 °C

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Melting point/range	: ca. -50 °C
Boiling point/boiling range	: ca. 109 °C
Flash point	: not applicable
Evaporation rate	: Currently we do not have any Information from our supplier about this.
Flammability (solid, gas)	: Currently we do not have any Information from our supplier about this.
Upper explosion limit	: Currently we do not have any Information from our supplier about this.
Lower explosion limit	: Currently we do not have any Information from our supplier about this.
Vapour pressure	: Currently we do not have any Information from our supplier about this.
Relative vapour density	: Currently we do not have any Information from our supplier about this.
Density	: ca. 1.2 g/cm ³ 20 °C
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: -1.57 25 °C log Pow, calculated on the pure substance
Ignition temperature	: Currently we do not have any Information from our supplier about this.
Thermal decomposition	: Currently we do not have any Information from our supplier about this.
Viscosity, kinematic	: Currently we do not have any Information from our supplier about this.
Explosivity	: Product is not explosive.
Oxidizing properties	: Currently we do not have any Information from our supplier about this.

9.2 Other information

No further information available.

10. Stability and reactivity

10.1. Reactivity

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Advice : No information available.

10.2. Chemical stability

Advice : No decomposition if stored and applied as directed.
No further information available.

10.3. Possibility of hazardous reactions

Hazardous reactions : No information available.

10.4. Conditions to avoid

Conditions to avoid : Keep away from direct sunlight.

10.5. Incompatible materials

Materials to avoid : Reducing agents
Metals
alkalis
Organic materials
Impurities
Combustible materials

10.6. Hazardous decomposition products

Hazardous decomposition products : Oxygen

11. Toxicological information

11.1. Information on toxicological effects

Product: hydrogen peroxide solution...%	CAS-No. 7722-84-1
Acute toxicity	
Oral	

Value type : Acute toxicity estimate
Value : 752 mg/kg

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Method : Calculation method

Inhalation

Value type : Acute toxicity estimate
Value : 22 mg/l
Method : Calculation method

Irritation

Skin

Species : rabbit
Result : Severe skin irritation

Eyes

Species : rabbit
Result : Severe eye irritation
Remarks : Risk of serious damage to eyes.

Sensitisation

Species : guinea pig
Result : not sensitizing

Further information

Other relevant toxicity information : All numerical values for acute toxicity are calculated on the pure substances.
Inhalation of aerosol may cause irritation to the upper respiratory tract.

Component: hydrogen peroxide solution

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Acute toxicity

Oral

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Value type : LD50
Value : 801 - 872 mg/kg
Species : rat

Value type : LD50 Oral
Value : 376 mg/kg
Species : rat

Dermal

Value type : LD50
Value : 4,060 mg/kg
Species : rabbit

Irritation

Skin

Species : rabbit
Result : corrosive effects

Eyes

Species : rabbit
Result : corrosive effects
Remarks : Risk of serious damage to eyes.

Sensitisation

Species : guinea pig
Result : not sensitizing

12. Ecological information**12.1. Toxicity**

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Component: hydrogen peroxide solution

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Acute toxicity**Fish**

Species : Pimephales promelas
Exposure Time : 96 h
Value type : LC50
Value : 16.4 mg/l

Species : Leuciscus idus melanotus
Exposure Time : 24 h
Value type : LC50
Value : 35 mg/l

Toxicity to daphnia and other aquatic invertebrates.

Species : Daphnia magna
Exposure time : 24 h
Value type : EC50
Value : 7.7 mg/l

algae

Species : scenedesmus quadricauda
Exposure time : 240 h
Value type : EC50
Value : 27.5 - 43 mg/l

Bacteria

Species : Pseudomonas putida
Exposure time : 16 h
Value : 11 mg/l

12.2. Persistence and degradability

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Product: hydrogen peroxide solution...%	CAS-No.
	7722-84-1

Persistence and degradability**Persistence**

Remarks : The product can be degraded by abiotic (e.g. chemical or photolytic) processes.

Biodegradability

Remarks : Readily biodegradable.

12.3. Bioaccumulative potential

Product: hydrogen peroxide solution...%	CAS-No.
	7722-84-1

Bioaccumulation

Remarks : Does not bioaccumulate.

12.4. Mobility in soil

Product: hydrogen peroxide solution...%	CAS-No.
	7722-84-1

Mobility

Remarks : no data available

12.5. Results of PBT and vPvB assessment

Product: hydrogen peroxide solution...%	CAS-No.
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Results of PBT and vPvB assessment

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Remarks : not applicable

12.6. Other adverse effects

Product: hydrogen peroxide solution...%	CAS-No. 7722-84-1
Additional ecological information	

Remarks : All numerical values for ecotoxicity effects are calculated on the pure substances.
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

13. Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. Transport information

14.1. UN number

2014

14.2. UN proper shipping name

ADR : HYDROGEN PEROXIDE, AQUEOUS SOLUTION

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IMDG : HYDROGEN PEROXIDE, AQUEOUS SOLUTION**14.3. Transport hazard class(es)**ADR-Class : 5.1
(Labels; Classification Code; Hazard
identification No; Tunnel restriction code) 5.1, 8; OC1; 58; (E)RID-Class : 5.1
(Labels; Classification Code; Hazard
identification No) 5.1, 8; OC1; 58IMDG-Class : 5.1
(Labels; EmS) 5.1, 8; F-H, S-Q**14.4. Packaging group**

ADR : II

RID : II

IMDG : II

14.5. Environmental hazardsLabeling according to 5.2.1.8 ADR : no
Labeling according to 5.2.1.8 RID : no
Labeling according to 5.2.1.6.3 IMDG : no
Classification as environmentally
hazardous according to 2.9.3 IMDG : no
Classified as "P" according to 2.10 IMDG : no**14.6. Special precautions for user**

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

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15. Regulatory information

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

hydrogen peroxide solution:

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
INV (CN)	YES	
ENCS (JP)	YES	(1)-419
SHL (JP)	YES	(1)-419
PHARM (JP)	YES	
TSCA	YES	
EINECS	YES	231-765-0
KECI (KR)	YES	97-1-2
KECI (KR)	YES	KE-20204
PICCS (PH)	YES	

15.2. Chemical Safety Assessment

Currently we do not have any Information from our supplier about this.

16. Other information

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

R22	Harmful if swallowed.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.

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

H302	Harmful if swallowed.
H315	Causes skin irritation.

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H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Further information

|| Other information : Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use.
|| The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.
|| The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

|| Indicates updated section.