

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: Hydrogen Peroxide 35%

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

Identified uses: Bleaching agent for pulp. Raw Material. Water treatment. Laboratory reagent.

Company name:

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Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008):

Physical hazards: Not Classified
Health hazards: Acute Tox. 4 - H302
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Dam. 1 - H318
STOT SE 3 - H335
Environmental hazards: Not Classified

Label elements:

Hazard pictograms:



Signal word:

Danger

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Hazard statements:	H302+H332 Harmful if swallowed or if inhaled. H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation.
Precautionary statements:	P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep 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. P310 Immediately call a POISON CENTER/ doctor. Contains hydrogen peroxide solution.
Supplementary precautionary statements:	P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P321 Specific treatment (see medical advice on this label). P330 Rinse mouth. P332+P313 If skin irritation occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.

Other hazards:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:	Hydrogen peroxide solution 30-40%
CAS number:	7722-84-1
EC number:	231-765-0
REACH registration number:	01- 2119485845-22-XXXX

Classification:	Ox. Liq. 1 - H271 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 Aquatic Chronic 3 - H412
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The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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4. FIRST AID MEASURES

Description of first aid measures:

- Inhalation:** Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention if symptoms are severe or persist.
- Ingestion:** Rinse mouth thoroughly with water. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. Get medical attention immediately.
- Skin contact:** It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if symptoms are severe or persist after washing.
- Eye contact:** Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. Get medical attention immediately.
- Protection of first aiders:** First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed:

- Inhalation:** May cause respiratory irritation.
- Ingestion:** May cause stomach pain or vomiting. Fatigue. Unconsciousness.
- Skin contact:** Causes skin irritation. Discoloration of the skin. Redness.
- Eye contact:** Causes serious eye damage. Symptoms following overexposure may include the following:
Pain. Profuse watering of the eyes. Redness.

Indication of any immediate medical attention and special treatment needed:

- Notes for the doctor:** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

- Suitable extinguishing media:** Water spray.
- Unsuitable extinguishing media:** Do not use the following: Foam. Carbon dioxide (CO₂). Powder. Dry chemicals. 5.2.

Special hazards arising from the substance or mixture:

- Specific hazards:** Containers can burst violently or explode when heated, due to excessive pressure build-up.
- Hazardous combustion products:** Thermal decomposition or combustion products may include the following substances:
Oxygen.

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Advice for firefighters:

Protective actions during firefighting: Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. May cause or intensify fire; oxidiser. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters: Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Avoid inhalation of dust and vapours. No smoking, sparks, flames or other sources of ignition near spillage. Do not touch or walk into spilled material. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions: Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up:

Methods for cleaning up: Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Contain and absorb spillage with sand, earth or other non-combustible material. Do not use sawdust or other combustible material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Inform authorities if large amounts are involved.

Reference to other sections: For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

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7. HANDLING AND STORAGE

Precautions for safe handling:

Usage precautions:

Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required. If ventilation is inadequate, suitable respiratory protection must be worn. Do not breathe vapour/spray. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not eat, drink or smoke when using this product. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Advice on general occupational hygiene: Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Wash promptly if skin becomes contaminated. Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities:

Storage precautions:

Store in tightly closed, original container in a dry, cool and well-ventilated place. Keep away from oxidising materials, heat and flames. Keep away from combustible materials. Protect from light. Store away from incompatible materials (see Section 10). Store at temperatures between 5°C and 25°C. 7.3.

Specific end use(s):

The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits:

Hydrogen peroxide solution

Long-term exposure limit (8-hour TWA): WEL 1 ppm 1.4 mg/m³

Short-term exposure limit (15-minute): WEL 2 ppm 2.8 mg/m³

WEL = Workplace Exposure Limit.

DNEL:

Workers - Inhalation; Short term local effects: 3 mg/m³

Workers - Inhalation; Long term local effects: 1.4 mg/m³

Consumer - Inhalation; Short term local effects: 1.93 mg/m³

Consumer - Inhalation; Long term local effects: 0.21 mg/m³

PNEC:

Fresh water; 0.0126 mg/l

Marine water; 0.0126 mg/l

Soil; 0.0023 mg/kg - STP; 4.66 mg/l

Sediment (Freshwater); 0.047 mg/kg

Sediment (Marine water); 0.047 mg/kg - Intermittent release; 0.0138 mg/l

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Exposure controls:

Protective equipment:



Appropriate engineering controls: Provide adequate ventilation. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Eye/face protection: Wear tight-fitting, chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection: It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection: Wear appropriate clothing to prevent skin contamination.

Hygiene measures: Provide eyewash station and safety shower. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection: Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Gas filter, type A2. Gas filter, type B.

Environmental exposure controls: Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Clear liquid.
Colour:	Colourless.
Bulk density:	~ 1128 kg/m ³
Solubility(ies):	Soluble in water.
Other information:	

10. STABILITY AND REACTIVITY

Reactivity: There are no known reactivity hazards associated with this product.

Chemical stability: Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

Possibility of hazardous reactions: No potentially hazardous reactions known.

Conditions to avoid: Avoid heat. Light.

Incompatible materials:

Materials to avoid: Acetone. Alkalis. Some metals. Metal oxides. Reducing agents. Some metals. Organic compounds.

Hazardous decomposition products: Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Oxygen.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity – oral:

ATE oral (mg/kg): 1,231.43

Acute toxicity – inhalation:

ATE inhalation (dusts/mists mg/l): 4.29

Toxicological information on ingredients:

Hydrogen peroxide solution:

Acute toxicity – oral:

Acute toxicity oral (LD₅₀ mg/kg): 431.0

Species: Rat

ATE oral (mg/kg): 431.0

Acute toxicity – dermal:

Notes (dermal LD₅₀): LD₅₀ >2000 mg/kg, Dermal, Rabbit

Acute toxicity – inhalation:

ATE inhalation (dusts/mists mg/l): 1.5

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Skin corrosion/irritation:

Skin corrosion/irritation: Corrosive to skin. Causes severe burns.

Serious eye damage/irritation:

Serious eye damage/irritation: Causes serious eye damage.

Respiratory sensitisation:

Respiratory sensitisation: No data available.

Skin sensitisation:

Skin sensitisation: Conclusive data but not sufficient for classification.

Germ cell mutagenicity :

Genotoxicity - in vitro: Conclusive data but not sufficient for classification.

Genotoxicity - in vivo: Conclusive data but not sufficient for classification.

Carcinogenicity:

Carcinogenicity: Conclusive data but not sufficient for classification.

Reproductive toxicity:

Reproductive toxicity – fertility: Conclusive data but not sufficient for classification.

Reproductive toxicity – development: Conclusive data but not sufficient for classification.

Specific target organ toxicity - single exposure:

STOT - single exposure: STOT SE 3 - H335 Respiratory system irritation.

Target organs: Respiratory tract

Specific target organ toxicity - repeated exposure:

STOT - repeated exposure: Conclusive data but not sufficient for classification. LOAEL 0.0029 mg/l, Inhalation, Rat NOAEL 26 mg/kg/day, Oral, Rat

Aspiration hazard:

Aspiration hazard: No data available.

12. ECOLOGICAL INFORMATION

Toxicity:

Ecological information on ingredients:

Hydrogen peroxide solution:

Toxicity: Aquatic Chronic 3 - H412

Acute aquatic toxicity:

Acute toxicity – fish: LC₅₀, 96 hour: 16.4 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates: LC₅₀, 48 hour: 2.4 mg/l, Daphnia pulex

Acute toxicity - aquatic plants: ErC₅₀, 72 hour: 1.38 mg/l, skeletonema costatum

Acute toxicity – microorganisms: EC₅₀, 0.5 hour: 466 mg/l, Activated sludge

Chronic aquatic toxicity:

Chronic toxicity - aquatic invertebrates: NOEC, 21 day: 0.63 mg/l, Daphnia magna.

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Persistence and degradability:

Ecological information on ingredients:

Hydrogen peroxide solution:

Persistence and degradability: Substance is inorganic.

Bioaccumulative potential:

Ecological information on ingredients:

Hydrogen peroxide solution:

Bioaccumulative potential: Bioaccumulation is unlikely.

Partition coefficient: Kow: -1.57 Calculation method.

Mobility in soil:

Ecological information on ingredients:

Hydrogen peroxide solution:

Mobility: Soluble in water.

Results of PBT and vPvB assessment:

Ecological information on ingredients:

Hydrogen peroxide solution

Results of PBT and vPvB assessment: This substance is not classified as PBT or vPvB according to current EU criteria.

Other adverse effects:

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General information:

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. Do not discharge into drains or watercourses or onto the ground.

Disposal methods:

Dispose of contents/container in accordance with local regulations.

14. TRANSPORT INFORMATION

UN number:

UN No. (ADR/RID): 2014

UN No. (IMDG): 2014

UN No. (ICAO): 2014

UN No. (ADN): 2014

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UN proper shipping name:

Proper shipping name (ADR/RID): HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Proper shipping name (IMDG): HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Proper shipping name (ICAO): HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Proper shipping name (ADN): HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Transport hazard class(es):

ADR/RID class: 5.1

ADR/RID subsidiary risk: 8

ADR/RID classification code: OC1

ADR/RID label: 5.1

IMDG class: 5.1

IMDG subsidiary risk: 8

ICAO class/division: 5.1

ICAO subsidiary risk: 8

ADN class: 5.1

ADN subsidiary risk: 8

Transport labels:



Packing group:

ADR/RID packing group: II

IMDG packing group: II

ICAO packing group: II

ADN packing group: II

Environmental hazards:

Environmentally hazardous substance/marine pollutant: No.

Special precautions for user :

EmS: F-H, S-Q

ADR transport category: 2

Emergency Action Code: 2P

Hazard Identification Number (ADR/RID): 58

Tunnel restriction code: (E)

Transport in bulk according to Annex II of MARPOL and the IBC Code:

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

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15. REGULATORY INFORMATION

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

National regulations:

Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits. The Poisons Act 1972 (Explosives Precursors) (Amendment) Regulations 2018. Control of Poisons and Explosives Precursors Regulation 2015.

EU legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Regulation (EU) No 98/2013 of the European Parliament and of the Council of 15 January 2013 on the marketing and use of explosives precursors.

Chemical safety assessment:

No chemical safety assessment has been carried out.

Note:

The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Abbreviations and acronyms used in the safety data sheet: ATE: Acute Toxicity Estimate.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

CAS: Chemical Abstracts Service.

GHS: Globally Harmonized System.

DNEL: Derived No Effect Level.

IATA: International Air Transport Association.

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

Kow: Octanol-water partition coefficient.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

PBT: Persistent, Bioaccumulative and Toxic substance.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

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SVHC: Substances of Very High Concern.

vPvB: Very Persistent and Very Bioaccumulative.

MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.

EC₅₀: 50% of maximal Effective Concentration.

LOAEL: Lowest Observed Adverse Effect Level.

NOAEL: No Observed Adverse Effect Level.

UN: United Nations.

IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).

Classification abbreviations and acronyms: Acute Tox. = Acute toxicity

Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Eye Dam. = Serious eye damage

Ox. Liq. = Oxidising liquid

Skin Corr. = Skin corrosion

STOT SE = Specific target organ toxicity-single exposure.

Hazard statements in full:

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation.

This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.