

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Hydrogen peroxide 30 - 32 % for trace analysis ultra ppt-grade

Revision date: 25.06.2024

Product code: 33798

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

1.1. Product identifier

Hydrogen peroxide 30 - 32 % for trace analysis ultra ppt-grade

UFI: 3QK0-K302-7003-T1GQ

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH
ACD
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
Telefax: 0203/5194-290
E-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit
Telephone: 0203/5194-107/117
E-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Tox. 4; H302

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

hydrogen peroxide solution 30 %

Signal word: Danger

Pictograms:



Hazard statements

H302 Harmful if swallowed.
H318 Causes serious eye damage.

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Precautionary statements

- P280 Wear protective gloves/protective clothing and 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.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7722-84-1	hydrogen peroxide solution ... %			30 - < 35 %
	231-765-0	008-003-00-9	01-2119485845-22	
	Ox. Liq. 1, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A; H271 H332 H302 H314			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7722-84-1	231-765-0	hydrogen peroxide solution ... %	30 - < 35 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1026 mg/kg Ox. Liq. 1; H271: >= 70 - 100 Ox. Liq. 2; H272: >= 50 - < 70 Skin Corr. 1A; H314: >= 70 - 100 Skin Corr. 1B; H314: >= 50 - < 70 Skin Irrit. 2; H315: >= 35 - < 50 Eye Dam. 1; H318: >= 8 - < 50 Eye Irrit. 2; H319: >= 5 - < 8 STOT SE 3; H335: >= 35 - 100	

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider

After inhalation

- Provide fresh air.
- Call a doctor if you feel unwell.

After contact with skin

- Wash immediately with: Water
- Take off immediately all contaminated clothing and wash it before reuse.
- Call a physician immediately.

After contact with eyes

- Rinse immediately carefully and thoroughly with eye-bath or water.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- Consult an ophthalmologist.

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After ingestion

Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

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

Dizziness, Unconsciousness
Gastrointestinal complaints, Vomiting
Headache, Spasms
Irritant, corrosive
Risk of serious damage to eyes.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids
Oxidizing

5.3. Advice for firefighters

Avoid contact with skin, eyes and clothes.
In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

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Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Read label before use.
- Handle and open container with care.
- Provide adequate ventilation.
- Avoid contact with skin, eyes and clothes.
- Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

- Keep away from combustible material.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

- Take off contaminated clothing.
- Wash hands before breaks and after work.
- When using do not eat or drink.

Further information on handling

- Take off contaminated clothing and wash it before reuse.
- Wash hands before breaks and after work.
- Draw up and observe skin protection programme.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- storage temperature: +2°C - +15°C
- Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve).
- Unsuitable container/equipment material: Metal

Hints on joint storage

- Keep away from combustible material.

Further information on storage conditions

- Keep cool. Protect from sunlight.
- Protect against: Light, Radiant heat.

7.3. Specific end use(s)

- Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
7722-84-1	Hydrogen peroxide	1	1.5		TWA (8 h)	
		2	3		STEL (15 min)	

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
7722-84-1	hydrogen peroxide solution ... %		
Worker DNEL, long-term	inhalation	local	1,4 mg/m ³
Worker DNEL, acute	inhalation	local	3 mg/m ³
Consumer DNEL, long-term	inhalation	local	0,21 mg/m ³
Consumer DNEL, acute	inhalation	local	1,93 mg/m ³

PNEC values

CAS No	Substance	
Environmental compartment	Value	
7722-84-1	hydrogen peroxide solution ... %	
Freshwater	0,013 mg/l	
Freshwater (intermittent releases)	0,014 mg/l	
Marine water	0,013 mg/l	
Freshwater sediment	0,047 mg/kg	
Marine sediment	0,047 mg/kg	
Micro-organisms in sewage treatment plants (STP)	4,66 mg/l	
Soil	0,002 mg/kg	

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatrill® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatrill® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

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).

Skin protection

Wear suitable protective clothing.
Take off immediately all contaminated clothing.

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Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	characteristic
Melting point/freezing point:	-26 °C
Boiling point or initial boiling point and boiling range:	107 °C
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	X
Auto-ignition temperature:	No data available
Decomposition temperature:	>100 °C
pH-Value:	2
Viscosity / kinematic:	No data available
Water solubility:	very soluble
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	No data available
Vapour pressure:	18 hPa
(at 20 °C)	
Vapour pressure:	No data available
Density:	1,11 g/cm ³
Bulk density:	No data available
Relative vapour density:	No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties	
No data available	
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
The product is: oxidising, Oxidising.	

Other safety characteristics

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	No data available

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Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
	No data available
Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidizing

10.2. Chemical stability

Protect against:

Heat

Light

10.3. Possibility of hazardous reactions

Combustible substance, Ether, Oxidising agent permanganates, e.g. potassium permanganate; Substance, organic Brass, Alkali metals, Alkaline earth metal metals, , aldehydes Alcohol, Amines, Ammonia (NH₃) Acid, Alkali (lye), Acetone Aniline, Lead, Metal powder Acetic acid, Acetic anhydride, Methanol White/yellow phosphor, Phosphorus oxides (e.g. P₂O₅), Sulphuric acid, concentrated, Heavy metals, Nitric acid, Phenol

10.4. Conditions to avoid

Heat

Light

10.5. Incompatible materials

Lead, bronze ferrous metal, Copper Brass, silver metals

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Harmful if swallowed.

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ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) 5,0000 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7722-84-1	hydrogen peroxide solution ... %				
	oral	LD50 1026 mg/kg	Rat	Study report (1996)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1983)	other: US EPA Toxic Substance Health Eff
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye damage.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Conjunctival oedema (chemosis).

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Other information

Dizziness, Unconsciousness
Gastrointestinal complaints, Vomiting
Headache, Spasms
Irritant, corrosive
Risk of serious damage to eyes.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7722-84-1	hydrogen peroxide solution ... %					
	Acute fish toxicity	LC50 mg/l	16,4	96 h	Pimephales promelas	Study report (1989) other:
	Acute algae toxicity	ErC50 mg/l	1,38	72 h	Skeletonema costatum	Study report (1997) other: Paris Commission guidelines
	Acute crustacea toxicity	EC50	2,4 mg/l	48 h	Daphnia pulex	Study report (1989) other:
	Crustacea toxicity	NOEC mg/l	0,63	21 d	Daphnia magna	Publication (2008) other:
	Acute bacteria toxicity	EC50 ()	466 mg/l	0,5 h	activated sludge of a predominantly domestic sewage	Study report (1999) OECD Guideline 209

12.2. Persistence and degradability

Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7722-84-1	hydrogen peroxide solution ... %	-1,57

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Avoid release to the environment.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a hazardous waste incinerator facility under observation of official regulations.
Do not mix with other wastes.
Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:

UN 2014

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14.2. UN proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
Hazard label: 5.1+8
Classification code: OC1
Limited quantity: 1 L
Excepted quantity: E2
Transport category: 2
Hazard No: 58
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 2014
14.2. UN proper shipping name: Hydrogen peroxide, aqueous solution
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
Hazard label: 5.1+8
Classification code: OC1
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 2014
14.2. UN proper shipping name: Hydrogen peroxide, aqueous solution
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
Hazard label: 5.1+8
Special Provisions: -
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-H, S-Q

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2014
14.2. UN proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION
14.3. Transport hazard class(es): 5.1
14.4. Packing group: -
Hazard label: 5.1+8
Limited quantity Passenger: Forbidden
Passenger LQ: Forbidden
IATA-packing instructions - Passenger: Forbidden
IATA-max. quantity - Passenger: Forbidden
IATA-packing instructions - Cargo: Forbidden
IATA-max. quantity - Cargo: Forbidden

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Oxidising substances.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

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Restrictions on use (REACH, annex XVII):

Entry 3

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,12.

Abbreviations and acronyms

- Ox. Liq: Oxidising liquid
- Acute Tox: Acute toxicity
- Skin Corr: Skin corrosion
- Eye Dam: Eye damage
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service
- LC50: Lethal concentration, 50%
- LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

- 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.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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Provide appropriate information, instructions and training to users

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)