

Hydrogen peroxide 27+weight % solution (

Revision: 03.04.2025

Product code: AC12.00144

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

1.1. Product identifier

Hydrogen peroxide 27+weight % solution (

UFI: 158J-M2H9-SWCW-XCF9

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

Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name: AnalytiChem Services, Unipessoal, Lda
 Street: Rua de Júlio Dinis 676 7º
 Place: N-4050-320 Porto
 Telephone: +351 226002917
 E-mail: info@analytichem.com
 Contact person: SDS service department
 E-mail: SDS@analytichem.com
 Internet: www.analytichem.com
 Responsible Department: SDS service department

Supplier or manufacturer details

Company name: AnalytiChem Belgium NV
 Street: Industriezone "De Arend" 2
 Place: B-8210 Zedelgem
 Telephone: +32 50 28 83 20
 E-mail: info.be@analytichem.com
 Contact person: SDS service department
 E-mail: SDS@analytichem.com
 Responsible Department: AnalytiChem:
 EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20
 EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200
 EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848
 UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500
 USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378
 Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701
 Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333
 +44 20 3807 3798 (CHEMTREC)

1.4. Emergency telephone number:

Further Information

inapplicable, this product is a mixture REACH registration number see section 3

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

Ox. Liq. 3; H272

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 27 %

Signal word:

Danger

Pictograms:**Hazard statements**

H272

May intensify fire; oxidiser.

H318

Causes serious eye damage.

Precautionary statements

P210

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

P220

Keep away from clothing and other combustible materials.

P280

Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

P310

Immediately call a POISON CENTER/doctor.

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 ... %			25 - < 30 %
	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.

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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 ... %	25 - < 30 %
		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.

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

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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****General advice**

Oxidising agent

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.

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.

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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**

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****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7722-84-1	Hydrogen peroxide	1	1.4		TWA (8 h)	WEL
		2	2.8		STEL (15 min)	WEL

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

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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

Tested protective gloves must be worn. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

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.

Thermal hazards

No data available

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	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available

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Upper explosion limits:	No data available
Flash point:	X
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	acidic
Viscosity / kinematic:	No data available
Water solubility:	very soluble
Solubility in other solvents	
not determined	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	No data available
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

No data available

Sustained combustibility:

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

Sublimation point:

No data available

Softening point:

No data available

Pour point:

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

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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****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

Acute toxicity

Based on available data, the classification criteria are not met.
Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.
Resorption (oral)
Inhalation effect: Damage to the respiratory tract.

ATEmix calculated

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

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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.

Information on likely routes of exposure

There are no data available on the mixture itself.

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**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.

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 UK REACH.

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 physico-chemical treatment 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

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Land transport (ADR/RID)

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
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

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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive

P8 OXIDISING LIQUIDS AND SOLIDS

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**SECTION 16: Other information****Abbreviations and acronyms**

Ox. Liq. 1: Oxidising liquids, hazard category 1

Ox. Liq. 3: Oxidising liquids, hazard category 3

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

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

Classification	Classification procedure
Ox. Liq. 3; H272	On basis of test data
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; 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

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properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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.)