

according to Regulation (EC) No. 1907/2006

Creation Date 06-May-2010 Revision Date 15-Feb-2024 Revision Number 7

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product Description: Hydrogen peroxide, for analysis, 35 wt.% solution in water

Cat No. : C20246

Synonyms Hydrogen Dioxide

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

Recommended Use Laboratory chemicals.

Sector of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Product category PC21 - Laboratory chemicals

Process categories PROC15 - Use as a laboratory reagent

**Environmental release category** ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

Uses advised against No Information available

#### 1.3. Details of the supplier of the safety data sheet

Company

Thermo Fisher (Kandel) GmbH

Erlenbachweg 2, 76870 Kandel, Germany

Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

**Swiss distributor -** Fisher Scientific AG Neuhofstrasse 11, CH 4153 Reinach

Tel: +41 (0) 56 618 41 11

https://www.fishersci.ch/ch/en/customer-help-

support/forms/email-us.html

**E-mail address** begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:

Tox Info Suisse Emergency Number: 145 (24hr)

Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)

Chemtrec (24h) Toll-Free: 0800 564 402 Chemtrec Local: +41-43 508 20 11 (Zurich)

## **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

ALFAAC20246

#### CLP Classification - Regulation (EC) No 1272/2008

#### **Physical hazards**

Oxidizing liquids Category 2 (H272)

#### **Health hazards**

Acute oral toxicity

Acute Inhalation Toxicity - Dusts and Mists

Category 4 (H302)

Skin Corrosion/Irritation

Category 2 (H315)

Serious Eye Damage/Eye Irritation

Specific target organ toxicity - (single exposure)

Category 1 (H318)

Category 3 (H335)

#### **Environmental hazards**

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

#### 2.2. Label elements



#### Signal Word

Danger

#### **Hazard Statements**

H272 - May intensify fire; oxidizer

H302 + H332 - Harmful if swallowed or if inhaled

H315 - Causes skin irritation

H318 - Causes serious eve damage

H335 - May cause respiratory irritation

## **Precautionary Statements**

P220 - Keep away from clothing and other combustible materials

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

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 or doctor/physician

#### 2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.2. Mixtures

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Hydrogen peroxide, for analysis, 35 wt.% solution in water

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Water	7732-18-5	231-791-2	60-65	-
Hydrogen peroxide	7722-84-1	231-765-0	35-40	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)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Hydrogen peroxide	Ox. Liq. 1 :: C>=70% Ox. Liq. 2 :: 20%<=C<70% Ox. Liq. 3 :: 8%<=C<20% Skin Corr. 1A :: C>=70% Skin Corr. 1B :: 50%<=C<70% Eye Dam. 1 :: >=8%C<50% Eye Irrit. 2 :: 55%<=C<8% Skin Irrit. 2 :: 35%<=C<50% STOT SE 3 :: C>=35% Aquatic Chronic 3 :: C>=63%	-	-

Full text of Hazard Statements: see section 16

## **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

**General Advice** If symptoms persist, call a physician.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

Inhalation If not breathing, give artificial respiration. Remove to fresh air. Get medical attention if

symptoms occur.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

None reasonably foreseeable. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

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

Notes to Physician Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

#### 5.1. Extinguishing media

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#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

#### Extinguishing media which must not be used for safety reasons

No information available.

#### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

#### **Hazardous Combustion Products**

Oxygen.

#### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation.

#### 6.2. Environmental precautions

Should not be released into the environment.

#### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Avoid ingestion and inhalation.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep only in the original container. Do not store near combustible materials. Do not store in metal containers. To maintain product quality. Protect from direct sunlight. Keep refrigerated. Corrosives area.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Storage Class/LGK 5.1B

Switzerland - Storage of hazardous substances

Storage class - SC 5 https://www.kvu.ch/de/themen/stoffe-und-produkte https://www.kvu.ch/fr/themes/substances-et-produits https://www.kvu.ch/it/temi/sostanze-e-prodotti

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#### 7.3. Specific end use(s)

Use in laboratories

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1. Control parameters

#### **Exposure limits**

List source(s): **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Hydrogen peroxide		STEL: 2 ppm 15 min	TWA / VME: 1 ppm (8	TWA: 1 ppm 8 uren	TWA / VLA-ED: 1 ppm
		STEL: 2.8 mg/m <sup>3</sup> 15 min	heures).	TWA: 1.4 mg/m <sup>3</sup> 8 uren	(8 horas)
		TWA: 1 ppm 8 hr	TWA / VME: 1.5 mg/m <sup>3</sup>	_	TWA / VLA-ED: 1.4
		TWA: 1.4 mg/m <sup>3</sup> 8 hr	(8 heures).		mg/m³ (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Hydrogen peroxide		TWA: 0.5 ppm (8	TWA: 1 ppm 8 horas		TWA: 1 ppm 8 tunteina
		Stunden). AGW -			TWA: 1.4 mg/m <sup>3</sup> 8
		TWA: 0.71 mg/m <sup>3</sup> (8			tunteina
		Stunden). AGW -			STEL: 3 ppm 15
		exposure factor 1			minuutteina
		TWA: 0.5 ppm (8			STEL: 4.2 mg/m <sup>3</sup> 15
		Stunden). MAK			minuutteina
		TWA: 0.71 mg/m <sup>3</sup> (8			
		Stunden). MAK			
		Höhepunkt: 0.5 ppm			
		Höhepunkt: 0.71 mg/m <sup>3</sup>			

Component	Austria	Denmark	Switzerland	Poland	Norway
Hydrogen peroxide	MAK-KZGW: 2 ppm 15	TWA: 1 ppm 8 timer	STEL: 2 ppm 15	STEL: 0.8 mg/m <sup>3</sup> 15	TWA: 1 ppm 8 timer
	Minuten	TWA: 1.4 mg/m <sup>3</sup> 8 timer	Minuten	minutach	TWA: 1.4 mg/m <sup>3</sup> 8 timer
	MAK-KZGW: 2.8 mg/m <sup>3</sup>	STEL: 2 ppm 15	STEL: 2.8 mg/m <sup>3</sup> 15	TWA: 0.4 mg/m <sup>3</sup> 8	STEL: 3 ppm 15
	15 Minuten	minutter	Minuten	godzinach	minutter. value
	MAK-TMW: 1 ppm 8	STEL: 2.8 mg/m <sup>3</sup> 15	TWA: 1 ppm 8 Stunden		calculated
	Stunden	minutter	TWA: 1.4 mg/m <sup>3</sup> 8		STEL: 2.8 mg/m <sup>3</sup> 15
	MAK-TMW: 1.4 mg/m <sup>3</sup> 8		Stunden		minutter. value
	Stunden				calculated

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Hydrogen peroxide	TWA: 1.5 mg/m³	TWA-GVI: 1 ppm 8 satima. TWA-GVI: 1.4 mg/m³ 8 satima. STEL-KGVI: 2 ppm 15 minutama. STEL-KGVI: 2.8 mg/m³ 15 minutama.	TWA: 1 ppm 8 hr. TWA: 1.5 mg/m³ 8 hr. STEL: 3 mg/m³ 15 min STEL: 2 ppm 15 min		TWA: 1 mg/m <sup>3</sup> 8 hodinách. Ceiling: 2 mg/m <sup>3</sup>

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Hydrogen peroxide	TWA: 1 ppm 8 tundides.		STEL: 3 mg/m <sup>3</sup>		TWA: 1 ppm 8
	TWA: 1.4 mg/m <sup>3</sup> 8		TWA: 1 ppm		klukkustundum.
	tundides.		TWA: 1.4 mg/m <sup>3</sup>		TWA: 1.4 mg/m <sup>3</sup> 8
	STEL: 2 ppm 15		_		klukkustundum.
	minutites.				Ceiling: 2 ppm
	STEL: 3 mg/m <sup>3</sup> 15				Ceiling: 2.8 mg/m <sup>3</sup>
	minutites.				

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Hydrogen peroxide		Ceiling: 2 ppm			
		Ceiling: 3 mg/m <sup>3</sup>			
		TWA: 1 ppm IPRD			
		TWA: 1.4 mg/m³ IPRD			

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Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Hydrogen peroxide		Ceiling: 2.8 mg/m <sup>3</sup>		Binding STEL: 2 ppm 15	
		TWA: 1 ppm		minuter	
		TWA: 1.4 mg/m <sup>3</sup>		Binding STEL: 3 mg/m <sup>3</sup>	
				15 minuter	
				TLV: 1 ppm 8 timmar.	
				NGV	
				TLV: 1.4 mg/m <sup>3</sup> 8	
				timmar. NGV	

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

Workers; See table for values

Component	Acute effects local	Acute effects Chronic effects		Chronic effects
	(Inhalation)	systemic (Inhalation)	(Inhalation)	systemic (Inhalation)
Hydrogen peroxide 7722-84-1 ( 35-40 )	DNEL = 3mg/m <sup>3</sup>		DNEL = 1.4mg/m <sup>3</sup>	

## **Predicted No Effect Concentration (PNEC)**

See values below.

	Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
İ	Hydrogen peroxide	PNEC =	PNEC =	PNEC =	PNEC = 4.66mg/L	PNEC =
	7722-84-1 ( 35-40 )	0.0126mg/L	0.047mg/kg	0.0138mg/L		0.0023mg/kg soil
1			sediment dw			dw

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Hydrogen peroxide	PNEC =	PNEC =			
7722-84-1 ( 35-40 )	0.0126mg/L	0.047mg/kg			
	-	sediment dw			

## 8.2. Exposure controls

#### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

## Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

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Breakthrough time **EU** standard Glove comments Glove material **Glove thickness** Natural rubber See manufacturers **FN 374** (minimum requirement) Nitrile rubber recommendations Neoprene **PVC** 

Long sleeved clothing. Skin and body protection

Inspect gloves before use, observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, gloves with care avoiding skin contamination.

When workers are facing concentrations above the exposure limit they must use **Respiratory Protection** 

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

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and maintained properly

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits Large scale/emergency use

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particulates filter conforming to EN 143 Inorganic gases and

vapours filter Type B Grey conforming to EN14387

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure Small scale/Laboratory use

limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water

system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

Liquid **Physical State** 

**Appearance** Colorless

No information available Odor **Odor Threshold** No data available -33 °C / -27.4 °F **Melting Point/Range Softening Point** No data available 108 °C / 226.4 °F **Boiling Point/Range** 

@ 760 mmHg Flammability (liquid) No data available

Flammability (solid,gas) Not applicable Liquid

No data available **Explosion Limits** 

No information available Method - No information available Flash Point

**Autoignition Temperature** No data available **Decomposition Temperature** > 125°C

pН 2-4

No data available **Viscosity** 

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow

Hydrogen peroxide -1.1

**Vapor Pressure** No data available

**Density / Specific Gravity** 1.135

Not applicable **Bulk Density** Liquid (Air = 1.0)**Vapor Density** 1.10

**Particle characteristics** Not applicable (liquid)

#### 9.2. Other information

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Oxidizing Properties Oxidizer

**Evaporation Rate** > 1.0 (Butyl Acetate = 1.0)

## **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity

Yes

10.2. Chemical stability

Stable under normal conditions. Oxidizer: Contact with combustible/organic material may

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cause fire.

10.3. Possibility of hazardous reactions

**Hazardous Polymerization** 

Hazardous polymerization does not occur.

Hazardous Reactions Non

None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat. Combustible material.

10.5. Incompatible materials

Metals. copper. Finely powdered metals. Reducing Agent. Strong bases. Combustible

material. Strong reducing agents.

10.6. Hazardous decomposition products

Oxygen.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

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

#### **Product Information**

(a) acute toxicity;

Oral Category 4
Dermal No data available
Inhalation Category 4

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Hydrogen peroxide	376 mg/kg ( Rat ) (90%) 910 mg/kg ( Rat ) (20-60%) 1518 mg/kg ( Rat ) (8-20% sol)	>2000 mg/kg(Rabbit)	LC50 = 2000 mg/m <sup>3</sup> (Rat) 4 h

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; Category 1

Bridging principle "Dilution"

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

(e) germ cell mutagenicity; No data available

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(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

No data available (g) reproductive toxicity;

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system.

No data available (i) STOT-repeated exposure;

**Target Organs** No information available.

(j) aspiration hazard; Based on available data, the classification criteria are not met

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

#### 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any

known or suspected endocrine disruptors.

## **SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity

**Ecotoxicity effects** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment. Contains a substance which is:. Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment. Toxic to aquatic

organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Hydrogen peroxide	LC50: 16.4 mg/L/96h (P.promelas)	EC50 7.7 mg/L/24h	EC50 2.5 mg/L/72h

12.2. Persistence and degradability Readily biodegradable

**Persistence** Soluble in water, Persistence is unlikely, based on information available, Miscible with

Not relevant for inorganic substances. Degradability

Degradation in sewage

treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Hydrogen peroxide	-1.1	No data available

12.4. Mobility in soil The product is water soluble, and may spread in water systems Will likely be mobile in the

environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB No data available for assessment.

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assessment

12.6. Endocrine disrupting

properties

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

**Persistent Organic Pollutant Ozone Depletion Potential** 

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

## **SECTION 13: DISPOSAL CONSIDERATIONS**

13.1. Waste treatment methods

Waste from Residues/Unused

**Products** 

Waste is classified as hazardous. Dispose of in accordance with the European Directives

on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.

**European Waste Catalogue (EWC)** According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the

application for which the product was used. Do not empty into drains. Large amounts will

affect pH and harm aquatic organisms.

**Switzerland - Waste Ordinance** Disposal should be in accordance with applicable regional, national and local laws and

regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance,

ADWO) SR 814.600

https://www.fedlex.admin.ch/eli/cc/2015/891/en

## **SECTION 14: TRANSPORT INFORMATION**

## IMDG/IMO

14.1. UN number UN2014

14.2. UN proper shipping name HYDROGEN PEROXIDE, AQUEOUS SOLUTION

14.3. Transport hazard class(es) 5.1 **Subsidiary Hazard Class** 8 14.4. Packing group II

**ADR** 

14.1. UN number UN2014

14.2. UN proper shipping name HYDROGEN PEROXIDE, AQUEOUS SOLUTION

14.3. Transport hazard class(es) 5.1 **Subsidiary Hazard Class** 8 14.4. Packing group II

IATA

14.1. UN number UN2014

14.2. UN proper shipping name HYDROGEN PEROXIDE, AQUEOUS SOLUTION

14.3. Transport hazard class(es) 5.1 8 **Subsidiary Hazard Class** II 14.4. Packing group

14.5. Environmental hazards No hazards identified

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14.6. Special precautions for user

No special precautions required.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

## **SECTION 15: REGULATORY INFORMATION**

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

#### **International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

	Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
	Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Г	Hydrogen peroxide	7722-84-1	231-765-0	-	-	X	X	KE-20204	Х	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Water	7732-18-5	Х	ACTIVE	X	Ī	X	Χ	Х
Hydrogen peroxide	7722-84-1	Х	ACTIVE	X	-	X	Х	Х

Legend: X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization		REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Hydrogen peroxide	7722-84-1	-	Use restricted. See item 75. (see link for restriction details)	<u>-</u>

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

#### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) -	Seveso III Directive (2012/18/EC) -
		Qualifying Quantities for Major Accident	Qualifying Quantities for Safety Report
		Notification	Requirements
Water	7732-18-5	Not applicable	Not applicable
Hydrogen peroxide	7722-84-1	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

#### **National Regulations**

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UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

Water endangering class = 1 (self classification) **WGK Classification** 

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Hydrogen peroxide	WGK1	

#### **Swiss Regulations**

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

#### 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## **SECTION 16: OTHER INFORMATION**

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

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H315 - Causes skin irritation

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

#### Legend

**CAS** - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b)

Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances/EU List of Notified Chemical Substances

Substances List **PICCS** - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

**EC50** - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of

Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime

Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association** 

MARPOL - International Convention for the Prevention of Pollution from

Ships

ATE - Acute Toxicity Estimate

VOC - (volatile organic compound)

#### Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data **Health Hazards** Calculation method **Environmental hazards** Calculation method

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date 15-Feb-2024

Hydrogen peroxide, for analysis, 35 wt.% solution in water

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Prepared By Health, Safety and Environmental Department

**Creation Date** 06-May-2010 **Revision Date** 15-Feb-2024

**Revision Summary** New emergency telephone response service provider.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No. 1907/2006

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**