PEROXYGENS

Brussels, January 2026

To whom it may concern

Hydrogen Peroxide Classification and Labelling

Hydrogen peroxide is listed in the current Annex VI of the CLP Regulation (see table below).

Index No	Chemical name	EC No	CAS No	Classification		Labelling			Specific Conc. Limits, M-factors and ATEs	Notes
				Hazard Class and Category Code(s)	Hazard statement Code(s)	Pictogram, Signal Word Code(s)	Hazard statement Code(s)	Suppl. Hazard statement Code(s)		
008-003-00-9	hydrogen peroxide solution ...%	231-765-0	7722-84-1	Ox. Liq. 1 Acute Tox. 4 * Acute Tox. 4 * Skin Corr. 1A	H271 H332 H302 H314	GHS03 GHS05 GHS07 Dgr	H271 H332 H302 H314		Ox. Liq. 1; H271: C ≥70 %**** Ox. Liq. 2; H272: 50 % ≤ C < 70 % **** * Skin Corr. 1A; H314: C ≥ 70 % Skin Corr. 1B; H314: 50 % ≤ C < 70 % Skin Irrit. 2; H315: 35 % ≤ C < 50 % Eye Dam. 1; H318: 8 % ≤ C < 50 % Eye Irrit. 2; H319: 5 % ≤ C< 8 % STOT SE 3; H335: C ≥ 35 %	B

Environment

To comply with the requirements of the Biocidal Products Regulation a new algal toxicity study has been done in 2025. The EC50 value was less than 1 mg/l and for this reason hydrogen peroxide is classified in aquatic acute toxicity category 1 (M-factor = 1) based on the criteria of the CLP Regulation (self-classification). In addition, the new algal toxicity study and also an existing chronic invertebrate study, revealed NOEC values less than 1 mg/l and therefore hydrogen peroxide should also be classified in aquatic chronic toxicity category 3 (also a self-classification). The new algal toxicity study will be included in the updated REACH dossier in 2026.

Based on the summation method, aqueous hydrogen peroxide solutions (containing only hydrogen peroxide and water) will be classified as follows:

Aquatic acute 1[1] (H400: Very toxic to aquatic life): C ≥ 25%

Aquatic chronic 3 (H412: Harmful to aquatic life with long lasting effects): C ≥ 25%

This is based on Table 4.1.1 and 4.1.2 of the CLP Regulation.

[1] *ADR/RID states under 5.2.1.8.1 that packages containing environmentally hazardous substances that meet the criteria of 2.2.9.1.10 must be permanently marked with the environmentally hazardous symbol. The equivalent statement for tank containers and tank vehicles can be found under 5.3.6.1 ADR/RID.*

PEROXYGENS Sector Group
Rue Belliard 40 b.15 B-1040 Brussels Belgium
https://www.peroxygens.org/
A sector group of Cefic
European Chemical Industry Council - Cefic aisbl
EU Transparency Register n° 64879142323-90

Acute oral toxicity

An acute oral toxicity study with a 35% aqueous solution and rats has been done by FMC (1983). This study was reliable without restriction and it resulted in LD50 values of 1193 (males) and 1270 mg/kg bw (females), respectively. The average LD50 value is 1232 mg/kg bw and this value results in an ATE value of the substance hydrogen peroxide of 431 mg/kg bw. This ATE value of 431 mg/kg bw can be used for the classification of mixtures which contain the ingredient hydrogen peroxide in an aqueous solution.

Based on the ATE value of 431 mg/kg bw, aqueous hydrogen peroxide solutions (containing only hydrogen peroxide and water) are classified in category 4 for acute oral toxicity if the concentration of hydrogen peroxide is equal to or higher than 22%. This is based on the formula included in section 3.1.3.6.1 of the CLP Regulation.

Acute inhalation toxicity

There are no reliable acute inhalation toxicity studies available which show that hydrogen peroxide should be classified. However, based on Annex VI of the CLP Regulation hydrogen peroxide has a minimum classification in category 4 for acute inhalation toxicity. For this reason, it is proposed to use the ATE values mentioned in Table 3.1.2 of the CLP Regulation for the classification of mixtures which contain hydrogen peroxide. For acute toxicity category 4 the ATE value is 11 mg/l for a vapour of hydrogen peroxide, while the ATE is 1.5 mg/l for a dust/mist of hydrogen peroxide.

Based on the ATE value of 1.5 mg/l, aqueous hydrogen peroxide solutions (containing only hydrogen peroxide and water) are classified in category 4 for acute inhalation toxicity if the concentration of hydrogen peroxide is equal to or higher than 30%. This is based on the formula included in section 3.1.3.6.1 of the CLP Regulation.

Revised harmonised classification

As indicated on page 1, hydrogen peroxide has currently already a harmonised classification (see Annex VI of the CLP regulation). However, the harmonised classification will be amended in the future because the ECHA Risk Assessment Committee (RAC) has proposed to change the classification of hydrogen peroxide during the RAC-73 meeting in 2025. For this reason, this document will be adapted when the Commission Regulation, with the amended classification and labelling of hydrogen peroxide, has been published (expected in 2027).

Classification of hydrogen peroxide solutions manufactured by CEFIC members

All aqueous hydrogen peroxide solutions, manufactured by the members of the Cefic Peroxygens Sector Group, will be classified and labelled according to the Annex of this document (modification of the existing Annex VI of Regulation 1272/2008).

For further details, please contact the Peroxygens Sector Group Manager: Yuhua Wu ywu@cefic.be

[2] Please note: This document follows the linguistic and stylistic conventions suggested in the European Commission's English Style Guide.

Annex: Classification and Labelling of aqueous Hydrogen Peroxide solutions according to CLP Regulation*

C ≥ 70%	Ox. Liq. 1: H271 (May cause fire or explosion; strong oxidiser) Acute Tox. 4: H302 (Harmful if swallowed) Acute Tox. 4: H332 (Harmful if inhaled) Skin Corr. 1A: H314 (Causes severe skin burns and eye damage) Eye Dam. 1: H318 (Causes serious eye damage) STOT SE 3: H335 (May cause respiratory irritation) Aquatic acute 1: H400 (Very toxic to aquatic life) Aquatic chronic 3: H412 (Harmful to aquatic life with long lasting effects)	 Danger
50% ≤ C < 70%	Oxi. Liq. 2: H272 (May intensify fire; oxidiser) Acute Tox. 4: H302 (Harmful if swallowed) Acute Tox. 4: H332 (Harmful if inhaled) Skin Corr. 1B: H314 (Causes severe skin burns and eye damage) Eye Dam. 1: H318 (Causes serious eye damage) STOT SE 3: H335 (May cause respiratory irritation) Aquatic acute 1: H400 (Very toxic to aquatic life) Aquatic chronic 3: H412 (Harmful to aquatic life with long lasting effects)	 Danger
35% ≤ C < 50%	Acute Tox. 4: H302 (Harmful if swallowed) Acute Tox. 4: H332 (Harmful if inhaled) Skin Irrit. 2: H315 (Causes skin irritation) Eye Dam. 1: H318 (Causes serious eye damage) STOT SE 3: H335 (May cause respiratory irritation) Aquatic acute 1: H400 (Very toxic to aquatic life) Aquatic chronic 3: H412 (Harmful to aquatic life with long lasting effects)	 Danger
30% ≤ C < 35%	Acute Tox. 4: H302 (Harmful if swallowed) Acute Tox. 4: H332 (Harmful if inhaled) Eye Dam. 1: H318 (Causes serious eye damage) Aquatic acute 1: H400 (Very toxic to aquatic life) Aquatic chronic 3: H412 (Harmful to aquatic life with long lasting effects)	 Danger
25% ≤ C < 30%	Acute Tox. 4: H302 (Harmful if swallowed) Eye Dam. 1: H318 (Causes serious eye damage) Aquatic acute 1: H400 (Very toxic to aquatic life) Aquatic chronic 3: H412 (Harmful to aquatic life with long lasting effects)	 Danger
22% ≤ C < 25%	Eye Dam. 1: H318 (Causes serious eye damage) Acute Tox. 4: H302 (Harmful if swallowed)	 Danger
8% ≤ C < 22%	Eye Dam. 1: H318 (Causes serious eye damage)	 Danger
5% ≤ C < 8%	Eye Irrit. 2: H319 (Causes serious eye irritation)	 Warning
C < 5%	Not hazardous	

* According to CLP Regulation, precautionary statements shall be selected in accordance with the criteria laid down in Part 1 of Annex IV taking into account the hazard statements and the intended or identified use or uses of the substance or mixture. Precautionary statements are therefore not harmonised.