

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)

CuraSolutions

by nature

Trade name: **CuraSolutions HYDRO L.O.G.**

Print date: 13.08.2020

Revision date: 13.08.2020

version 1.5

replaces version 1.4

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

- 1.1 Product identifier **CuraSolutions HYDRO L.O.G.**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses Concentrated solution for disinfection of water systems.
- 1.3 Supplier CuraSolutions GmbH
Frauengasse 2
A-2700 Wiener Neustadt
T: +43 2622 32912
- Competent person Email: office@curasolutions.at
- 1.4 Emergency telephone number Please contact the regional poison center or emergency call.
Austrian toxicity information center Vienna:
+43 1 406 43 43
Available 24 hours

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
▲ According to regulation (EC) No. 1272/2008

Serious eye damage, category 1

H318 Causes serious eye damage.

- 2.2 Label elements
▲ According to regulation (EC) No. 1272/2008



Danger

H318 Causes serious eye damage.

P280 Wear protective gloves/eye 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.

P501 Dispose of contents/container in accordance with local regulations.

▲ Hazard components for labelling

Hydrogen peroxide solution 13 – 18,5%

- 2.3 Other hazards
After contact with skin, the product causes whitish discoloration (bleaching) of the skin.

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Results of PBT and vPvB assessment

PBT: No data available.

vPvB: No data available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical characterization

Mixture of the following ingredients and nonhazardous additives.

Hazardous ingredients

Chemical name	CAS # / EC # / Index #	%-w/w	Classification acc. to (EC) No. 1272/2008*	
Hydrogen peroxide** Reference# acc. to REACH: 01-2119485845-22-xxxx	7722-84-1 / 231-765-0 / 008-003-00-9	13 – 18.5	Ox. Liq. 1 Acute Tox. 4 Skin Corr. 1A Acute Tox. 4 STOT SE 3 Aqu. chron. 3	H271 H302 H314 H332 H335 H412
L-(+)-lactic acid Reference# acc. to REACH: 01-2119474164-39-xxxx	79-33-4 / 201-196-2 / ---	1 – 2.5	Skin Irrit. 2 Eye Dam. 1	H315 H318

* Full text of Hazard statements and hazard categories: see section 16.

** Substance with an occupational exposure limit value (see section 8)

SECTION 4: First aid measures

4.1 Description of first aid measures

Seek medical advice if symptoms occur.

Never give anything by mouth to an unconscious person or a person with cramps.

Change contaminated, saturated clothing.

In case of inhalation

Provide fresh air. In case of problems, consult a physician.

If unconscious, place in recovery position and seek medical advice.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap.

Change contaminated, saturated clothing – wash before reuse.

Seek medical advice.

In case of eye contact

In case of contact with eyes, flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Consult an ophthalmologist or eye clinic immediately.


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 In case of ingestion

Rinse mouth thoroughly with cold water. Do not induce vomiting. If the patient is fully conscious, give plenty of water to drink. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Acute: causes serious eye damage. After contact with skin, the product causes whitish discoloration (bleaching) of the skin.

4.3 Indication of any immediate medical attention and special treatment needed

Depending on the condition of the patients, the doctor must assess the symptoms and the overall general condition.



SECTION 5: Firefighting measures

5.1 Extinguishing media

The product is not combustible, but oxidizing.

 Suitable extinguishing media

CO₂, extinguishing powder, water spray
Fight larger fires with water spray or alcohol-resistant foam

 Extinguishing media which must not be used for safety reasons

Water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible, but oxidizing.
Fire may cause formation of CO_x.

5.3 Advice for firefighters

Special protective equipment:

Wear a self-contained breathing apparatus and chemical protective clothing.
Cool endangered containers with water spray jet. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.



SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Restricted access to contaminated areas, until cleaning work is finished.
Wear personal protection equipment.
Avoid contact with skin and eyes.
Provide adequate ventilation.

6.2 Environmental precautions

Do not allow the concentrated solution and large quantities to enter into surface water, ground water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid binding, inert material (e. g. sand, kieselguhr, Universal binder, acid binder)
Do not use sawdust or other combustible materials!

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Wash away residues with water.

Treat the recovered material as prescribed in the section on waste disposal (section 13).

6.4 Reference to other sections

See protective measures under section 8 and disposal under section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Observe general hygiene measures in the working area. Avoid contact with eyes and skin. Keep container tightly closed, but do not seal gas tight. Protect product from contamination.

Observe protective measures and safety instructions.

An eyewash bottle should be made available in the immediate working area.

7.2 Conditions for safe storage, including any incompatibilities

▲ Precautions against fire and explosion

The product is not combustible but oxidizing. Do not store together with combustible materials.

▲ Requirements on storage and packaging/containers

Provide adequate ventilation.

Keep cool and dry. Protect from frost, heat and direct sunlight.

Store in original container.

Do not store together with combustible materials, reducing agents and alkalis.

▲ Incompatibility with materials

Avoid contact of the concentrated solution with base metals and sensitive materials.

Test material compatibility before use if required.

▲ Conditions of storage

cool

▲ Storage category acc. to VCI

5.1B – oxidizing substances

7.3 Specific end use(s)

Concentrated solution for disinfection of water systems.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Observe the member state specific regulations.

MAK (maximum workplace concentrations)-value (valid for A acc. to GKV 2011 Annex 1)

			TMW / KZW*		notes	duration
name	CAS#		[ppm]	[mg/m ³]		[min]
hydrogen peroxide	7722-84-1	MAK	1 / 2	1.4 / 2.8	H	8x5(Mow)

*TMW
Mow

Daily average value
instantaneous value

KZW
H

Short-time value
Risk of skin resorption

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Occupational workplace limit (recommendation of MAK commission valid for D) - last update 2020

name	CAS#	Limit value		Peak limit
		[ppm]	[mg/m ³]	
hydrogen peroxide	7722-84-1	0.5	0.71	1 (1)

DNEL-values (derived no-effect level)

name		
hydrogen peroxide		
workers		
long-term exposition – local effects	inhalation	1.4 mg/m ³
short-term exposition – local effects	inhalation	3 mg/m ³
consumers		
long-term exposition – local effects	inhalation	0.21 mg/m ³
short-term exposition – local effects	inhalation	1.93 mg/m ³

PNEC- values (predicted no-effect concentration)

name	
hydrogen peroxide	
fresh water	0.013 mg/l
sea water	0.013 mg/l
intermittent release	0.014 mg/l
STP	4.66 mg/l
sediment (fresh water)	0.047 mg/kg sediment dw
sediment (sea water)	0.047 mg/kg sediment dw
soil	0.002 mg/kg soil dw

8.2 Exposure control

General protection and hygiene measures

When handling with chemical substances, observe usual precautionary measures.

Keep away from foods and drinks.

When using, do not eat, drink, smoke.

Wash hands after working with product.

Avoid contact with skin and eyes.

Avoid breathing vapors/aerosols.

Change contaminated clothes and wash before reuse.

An eyewash bottle should be made available in the immediate working area.

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Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

 Respiratory protection

Wear respiratory protection if workplace limits are exceeded.

 Hand protection

Wear protective gloves (e.g. chloroprene, nitril rubber). EN 374

The selection of suitable gloves depends not only on the material, but also on other quality characteristics. Breakthrough times and swelling properties of the material must be taken into consideration.

 Eye protection

Protective goggles. EN 166

 Body protection
















Protection clothes and impermeable, sufficiently long apron.

 Environmental exposure controls

Do not allow the concentrated solution and large quantities to enter into surface water, ground water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

 Physical state / Appearance	liquid
 Colour	colourless
 Odour	characteristic
 Odour threshold	No information available.
 pH value	approx. 2.4
 Melting point/range	approx. -4 °C
 Boiling point/range	113 °C
 Flash point	n. a.
 Evaporation rate	No information available.
 Flammability (solid, gas)	No information available.
 Upper/lower explosive limits	No information available.
 Vapour pressure (27 °C)	approx. 20 hPa
 Density (20 °C)	1.019 g/cm ³
 Solubility in water (20 °C)	Miscible as required.
 Partition coefficient: n-octanol/water;	No information available.

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-  Auto-ignition temperature No information available.
-  Decomposition temperature No information available.
-  Viscosity No information available.
-  Explosion properties Not explosiv.
-  Oxidising properties Oxidising properties.

9.2 Other information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

Avoid contamination of the mixture. The natural decomposition of hydrogen peroxide will be accelerated.

10.2 Chemical stability

The mixture is stable for at least 12 months if stored as prescribed.

10.3 Possibility of hazardous reactions

Risk of explosion with:

Risk of ignition or formation of inflammable gases or vapours with:

alkali metals, alkali salts, alkaline earth metals, Mmetals, metallic oxides, metallic salts, nonmetals, nonmetallic oxides, aldehydes, alcohols, amines, ammonia, hydrazine and derivates, hydrides, combustible materials, ether, acids, anhydrides, oxidizing agents, organic substances, peroxi compounds, permanganates, organic solvent, organic nitro compounds, brass.

10.4 Conditions to avoid

Heating, light.

10.5 Incompatible materials

No further information available. (see also 10.3)

10.6 Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological data for the product are not available.

 LD₅₀ values of single components relevant for classification (literature data)

name	CAS-No.	
hydrogen peroxide	7722-84-1	LD ₅₀ (oral/rat) = 694 - 1026 mg/kg (70% i.S.) LD ₅₀ (dermal/rat) > 2000 mg /kg LC ₅₀ (inhalation/rat/4 h) > 0.17 mg/l (50 % i.S.)
L-(+)-Lactic acid	79-33-4	LD ₅₀ (oral/rat) = 3543 – 4936 mg/kg

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Acute toxicity

Based on available data classification criteria are not fulfilled.

ATE_{mix} (oral, calculated) > 2000 mg/kg

Skin corrosion/irritation

Based on available data classification criteria are not fulfilled.

Skin contact causes whitish discoloration (bleaching) of the skin.

Serious eye damage/irritation

Category 1: Causes serious eye damage.

Skin/Respiratory sensitization

Based on available data classification criteria are not fulfilled.

Germ cell mutagenicity

The product does not contain any ingredients in a concentration equal or higher than 0.1 %, which are classified as mutagenic.

Based on available data classification criteria are not fulfilled.

Cancerogenicity

The product contains between 13 and 18.5 % (w/w) hydrogen peroxide (CAS: 7722-84-1), which is classified by the International Agency for Research on Cancer (IARC) as Group 3 ("Not classifiable as to its carcinogenicity to humans.").

Based on available data classification criteria are not fulfilled.

Reproductive toxicity

The product does not contain any ingredients in a concentration equal or higher than 0.1 %, which are classified as toxic for reproduction.

Based on available data classification criteria are not fulfilled.

Specific target organ toxicity – single exposure

Based on available data classification criteria are not fulfilled.

Specific target organ toxicity – repeated exposure

Based on available data classification criteria are not fulfilled.

Aspiration hazard

Based on available data classification criteria are not fulfilled.

Other information

The product was classified on the basis of the calculation procedure of the CLP- Regulation (EC) 1272/2008 annex I.

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicological data for the product are not available.

The product was classified on the basis of the calculation procedure of the CLP- Regulation (EC) 1272/2008.

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Aquatic toxicity of ingredients

hydrogen peroxide (CAS: 7722-84-1) (source: foreign-SDS)

LC50 (96 h): 16.4 mg/l – Pimephales promelas

ErC50 (72 h): 1.38 mg/l - Algae

L-lactic acid (CAS: 79-33-4) (source: foreign-SDS)

EC50 (48 h): 130 mg/l – aquatig invertebrates

ErC50 (72 h): 3.5 mg/l – algae

NOEC (3 h): 88.2 mg/l - microorganisms

12.2 Persistence and degradability

hydrogen peroxide (CAS: 7722-84-1)

Readily biodegradable.

L-lactic acid (CAS: 79-33-4)

Readily biodegradable.

12.3 Bioaccumulative potential

hydrogen peroxide (CAS: 7722-84-1)

Log Pow: -1.57 – No significant accumulation in organisms.

L-lactic acid (CAS: 79-33-4)

Log Pow: -0.54 – No significant accumulation in organisms.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

Do not allow the concentrated solution and large quantities to enter into surface water, ground water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Any disposal practice must be in compliance with all local and national laws and regulations.

Customers are advised to check their local legislation governing the disposal of waste materials.

If this preparation becomes a waste, the final user must define and assign the appropriate European Waste Catalogue code. Use only authorized contractors.

Do not allow large quantities to enter into surface water, ground water or drains.

European Waste Catalogue

16 09 03* - peroxides, e.g. hydrogen peroxide

Notes: The European Waste Catalogue (EWC) classifies waste materials and categorises them according to what they are and how they were produced. This may cause other classifications. The final decision belongs to the last user.

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▲ Uncleaned packaging

Recommendation: completely emptied packages can be recycled by authorized contractors.

SECTION 14: Transport information

14.1 UN number

2984

14.2 UN proper shipping name

ADR/RID/IMDG: HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 8 % but less than 20 % hydrogen peroxide (stabilized as necessary)

14.3 Transport hazard class(es)

5.1



14.4 Packing group

III

14.5 Environmental hazards

None.

14.6 Special precautions for user

Colourless liquid. Decomposition with formation of oxygen. Rate of decomposition increases by contact with metals except aluminium.

EmS: F-H, S-Q

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

Not relevant.

SECTION 15: Regulatory information

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

Safety Data Sheet according to REACH – Regulation (EC) No. 1907/2006 (resp. Reg. 2015/830 – amendment of REACH Annex II)

The mixture was classified on the basis of the calculation procedure of the CLP- Regulation (EC) 1272/2008 (Annex 1).

Other laws:

▲ Biocide-regulation (EU) No. 528/2012

▲ Directive 2012/18/EU – Named dangerous substances – ANNEX I
None of the ingredients is listed.

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- ▲ Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
None of the ingredients is listed.

National laws:

Austria:

- ▲ VbF – Regulation on combustible liquids (BGBl 1991/240)
Not applicable

Germany:

- ▲ Ordinance on Installations for the Handling of Substances Hazardous to water (AwSV) of 18.04.2017
WGK 1 (weakly hazardous for water)

15.2 Chemical safety assessment

Not available for the mixture.

SECTION 16: Other information

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

All materials may present unknown hazards and should be used with caution and only for identified uses described in Section 1. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. No liability can be accepted for damage during handling or contact with the product.

The mixture was classified on the basis of the calculation procedure of the CLP- Regulation (EC) 1272/2008 (Annex 1). The classification of ingredients is based on manufacturer's data and CLP Regulation Annex VI completed by data of the European Chemical Agency (ECHA).

▲ Relevant hazard statements

H271	May cause fire or explosion; strong oxidizer.
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.

▲ Relevant hazard categories

Acute Tox. 4	Acute toxicity, category 4
Aqu. Chron. 3	Hazardous to the aquatic environment – chronic hazard, category 4
Eye Dam. 1	Serious eye damage, category 1
Ox. Liq. 1	Oxidising liquid, category 1
Skin Corr. 1A	Skin corrosion, category 1A
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity – single exposure, category 3

- ▲ Version
Version 1.5 replaces V1.4 of 14.06.2019
Update: 2.3, 8, 11.1, 15.1

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 Created by

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 Abbreviations

n. a. Not applicable.

PBT persistent, bioaccumulative, toxic

vPvB very persistent, very bioaccumulativ

