

MATERIAL SAFETY DATA SHEET

IN ACCORDANCE WITH REGULATION (EC) 1907/2006 (REACH)

Trade name:	GB Ionsix disinfectant produced by electrolysis	Page 10/1
Product number:	-	Preparing date: 2024.11.04.
Version No.:	1.0 English	

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name: GB Ionsix disinfectant produced by electrolysis

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

Relevant identified uses: A multi-component disinfectant suitable for the disinfection of drinking water, swimming pool water, domestic hot water and other waters, which is prepared in situ by electrolysis.
Professional and industrial use.

Uses advised against: Not known.

1.3. Details of the supplier of the safety data sheet

Contract manufacturer: GB Water Disinfection Kft.
8085 Vértesboglár, Dózsa utca 38.
Tel.: +36 70 313 00 60
e-mail: info@gbwater.eu

Email address of the responsible person
for the MSDS:

info@gbwater.eu

1.4. Emergency telephone number

Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)
06 80/201-199 Free calling in 24 hours!

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is not classified as hazardous according to the Regulation (EC) No 1272/2008.

Adverse physicochemical, human health and environmental effects:
Not known.

2.2 Label elements:

H statements: -

P statements: -

EUH210 Safety data sheet available on request.

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2.3 Other hazards:

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical name	CAS No.: EK No.: Index No.: Registration No.:	Concentration m/m%	Classification
chlorine	7782-50-5 231-959-5 017-001-00-7 -	0,03	Press. Gas Ox. Gas 1 H270 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Acute Tox. 3 H331 STOT SE 3 H335 Aquatic Acute 1 H400
sodium hydroxide	1310-73-2 215-185-5 011-002-00-6 -	0,09	Skin Corr. 1A H314
chlorine dioxide	10049-04-4 233-162-8 017-026-00-3 -	0,0025	Press. Gas Ox. Gas 1 H270 Skin Corr. 1B H314 Acute Tox. 2 H330 Aquatic Acute 1 H400
oxygen	7782-44-7 231-956-9 008-001-00-8 -	0,01	Press. Gas Ox. Gas 1 H270
ozone	10028-15-6 233-069-2 - -	0,0004	Ox. Gas 1 H270 Skin Corr. 1 H314 BEye Dam. 1 H318 Acute Tox. 1 H330 STOT RE 1 H372 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

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hydrogen peroxide	7722-84-1 231-765-0 008-003-00-9 -	0,00008	Ox. Liq. 1 H271 Acute Tox. 4 H302 Skin Corr. 1A H314 Acute Tox. 4 H332
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See section 16 for the text of H statements.

SECTION 4 - FIRST AID MEASURES

4.1. Description of first aid measures

If inhaled: Take the exposed person to the fresh air. In case of complaints/symptoms, call for medical advice immediately.

Skin contact: Take the infected clothes and shoes off immediately. Wash the affected area with soap and flush plenty of water. In case of symptoms, call for medical advice.

Eye contact: Flush gently and thoroughly for 15 minutes with large amounts of clean water, occasionally lifting upper and lower lids. Consult with ophthalmologist for safety reason.

If ingested: Rinse the mouth out with water. Make the exposed person drink a glass of water. In case of complaints/symptoms, call for medical advice immediately.

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

May cause irritation, difficulty breathing and nausea by inhalation, slight irritation in contact with eyes or sensitive skin.

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

No special treatment required, symptomatic treatment.

SECTION 5 – FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: as the product is not combustible according to environmental conditions, fire extinguishing powder, fire extinguishing foam, water spray, water spray, water jet.

Extinguishing media, which shall not be used for safety reasons: Not known.

5.2. Special hazards arising from the substance or mixture

In case of fire (after evaporation of water) irritating fumes / chlorine may be formed.

5.3. Advice for firefighters

Inhalation of fumes and vapors should be avoided. Wear suitable respiratory equipment (independent of outside air).

Personal protective equipment including: suitable protective gloves, goggles and protective clothing.

Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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For non-emergency personnel: Only trained personnel with appropriate personal protective equipment (see section 8) who are familiar with the necessary tasks may be present at the scene of an accident.

For emergency providers: Avoid spilling the product. Avoid contact with skin and eyes, do not breathe vapors. Adequate ventilation should be provided in confined spaces.

6.2. Environmental precautions

Prevent the material in large quantity from entering to the ground, surface or ground water and sanitary sewer system. It can cause a pH shift if it enters drains or living waters in a concentrated manner!

Dilute or neutralize the mixture with plenty of water, approx. 1:1000 ratio. The product can then be discharged into the sewage system.

6.3. Methods and material for containment and cleaning up

No special instructions. Dispose of in accordance with local and national regulations (see section 13).

6.4. Reference to other sections

Section 8. and 13.

SECTION 7 - HANDLING AND STORAGE

7.1. Precautions for safe handling

Adherence to standard hygiene procedures is mandatory.

Do not breathe vapor or spray of the product! Read the manufacturer's instructions for use before use.

Technical measures:

Ensure adequate ventilation during handling. Use in a well-ventilated area.

Fire and explosion protection regulations: No special instructions.

Application temperature: 0.5-80 ° C.

7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities:

Keep in a tightly closed container, preferably in a cool place (below 25 ° C).

Do not expose to heat or direct sunlight.

Keep container in a well-ventilated place.

Incompatible materials: metals, rubber.

Type of material used for packaging / storage: plastic barrel with lid. Unsuitable packaging materials: metal containers (corrosive to metals).

7.3. Specific end use(s): A multi-component disinfectant suitable for the disinfection of drinking water, swimming pool water, domestic hot water and other waters, which is prepared in situ by electrolysis. For industrial and professional use.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

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Ingredients with exposure limit values to be taken into account depending on the workplace:

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7782-50-5	chlorine	--	1,5
10028-15-6	ozone	0,2	0,2
1310-73-2	sodium hydroxide	1	2

8.2. Exposure controls

Collective / technical protection measures at work:

Adequate ventilation should be provided at the point of handling and storage of the product. Care should be taken to avoid contact with skin, eyes and vapors.

General occupational hygiene measures:

Keep away from food, drink and animal feeding stuffs.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash hands thoroughly before breaks and at the end of work. Contaminated / soaked clothing should be removed immediately and washed again before use. Individual protection measures, such as personal protective equipment:

Personal protection at work:

Respiratory Protection: Not required under normal conditions of use, use only in well-ventilated areas.

Hand protection: Normally not necessary, wash skin with soap and plenty of water.

Body protection: it is not normally necessary to wash the product with water with water.

Eye/face protection: In case of mist / spray formation goggles in accordance with the regulations are recommended (EN 166).

Environmental exposure controls:

No special instructions.

Other special: No data provided by the manufacturer.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colorless, translucent
Odour not determined	slightly chlorine odor
Melting point/freezing point not determined	
Boiling point or initial boiling point and boiling range not determined	
Flammability	not flammable
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not determined

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pH	7.6
Kinematic viscosity	not determined
Solubility in water	miscible
Partition coefficient n-octanol/water (log value)	not determined
Vapour pressure	not determined
Density and/or relative density	not determined
Relative vapour density	not determined
Particle characteristics	not relevant (liquid)

not determined ~ The manufacturer did not carry out tests on these parameters for the product, or the results of the tests are not available at the time of issuing the material safety data sheet.

9.2 Other information No further relevant information.

SECTION 10 - STABILITY AND REACTIVITY

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable at normal storing and using conditions.

10.3. Possibility of hazardous reactions

Not expected.

10.4. Conditions to avoid

Warming, high temperatures.

10.5. Incompatible materials

Metals, gum.

10.6. Hazardous decomposition products

Contact with chlorine gas or metals may liberate flammable hydrogen gas.

SECTION 11- TOXICOLOGICAL INFORMATION

No toxicological data are available for this product.

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

(a) **Acute toxicity:** Based on the available data, the classification criteria are not met.

(b) **Skin corrosion/irritation:**

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

(c) **Serious eye damage/irritation:**

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

(d) **Respiratory or skin sensitisation:**

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

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(e) Germ cell mutagenicity:

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

(f) Carcinogenicity:

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

(g) Reproductive toxicity:

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

(h) STOT-single exposure:

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

(i) STOT-repeated exposure:

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

(j) Aspiration hazard:

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

Other data, specific effects:

Other informations:

According to the manufacturer's experience and the available data, the product does not cause harm to the human body when used as directed.

Information of exposition routes:

Most likely routes of exposure: ingestion, inhalation, skin contact, eye contact.

Symptoms related to the physical, chemical and toxicological characteristics:

May cause irritation, difficulty breathing and nausea by inhalation, slight irritation in contact with eyes or sensitive skin.

11.2 Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity:

Based on available data the classification criteria are not met.

No environmental problems are to be expected when the product is handled and used properly.

12.2 Persistence and degradability:

The product is not persistent.

12.3 Bioaccumulative potential:

The product is not bioaccumulative.

12.4 Mobility in soil:

No data available.

12.5 Results of PBT and vPvB assessment

The product does not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) substances.

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12.6 Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects

Improper dilution may be harmful to aquatic organisms. Do not allow undiluted product to enter drains, sewers or other watercourses.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Do not discharge the residue or the packaging of the product into the surface and groundwater.

Dispose in compliance with the EU and the National regulations.

Product disposal information:

Dispose of in accordance with local regulations.

The concentrated solution should not be flushed into or out of surface water or drains.

Can be drained in a 1: 1000 dilution ratio.

The product cannot be assigned a proper waste list code as it can be identified by the user-defined use. The waste inventory code may be given by the person carrying out the disposal in consultation with a specialist.

Information on disposal of packaging:

Not applicable due to on-site production (in-situ).

SECTION 14 - TRANSPORTATION INFORMATION

This product is not among the hazardous goods according to the international transport regulations.

14.1 UN number or ID number: -

14.2 UN proper shipping name: -

14.3 Transport hazard class(es): -

14.4 Packing group: -

14.5 Environmental hazards: -

14.6 Special precautions for user: -

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

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REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
REGULATION (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP)

15.2 Chemical safety assessment: Not applicable according to Regulation (EC) No 1907/2006 [REACH] Article 37 (4).

SECTION 16 - OTHER INFORMATION

List of relevant hazard (H) statements which are not written out in full under Sections 3.:

H270 May cause or intensify fire; oxidiser.
H271 May cause fire or explosion; strong oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Explanation of abbreviations and acronyms used in the safety data sheet:

CAS number: A unique numerical identifier assigned by the Chemical Abstracts Service.

EINECS number: This is the number of the substance in the European Inventory of Existing Commercial Chemical Substances.

H -phrases: also called hazard statements. They are intended to form a set of standardized phrases about the hazards of chemical substances and mixtures.

P- phrases: also known as precautionary statements. They are intended to form a set of standardized phrases giving advice about the correct handling of chemical substances and mixtures.

PBT materials: substances of very high concern substances (SVHC): Persistent (not naturally degradable), Bioaccumulative (accumulate in living organism) and Toxic materials.

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vPvB: very Persistent, and very Bioaccumulative properties, substances of very high concern (SVHC).

LD₅₀: this value indicates that dosage amount of a compound, what can cause the death of 50% of the animals within 24 hours.

LC₅₀: this value shows which concentration of the substance can cause the death of 50% of the animals within 24 hours.

EWC: European Waste Catalogue and hazardous waste list.

MARPOL: MARPOL 73/78 is the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("Marpol" is short for marine pollution and 73/78 short for the years 1973 and 1978.)

More information

Classification procedure: calculation method according to Annex I of CLP Regulation (EC) No 1272/2008

Statement

The producer of the safety data sheet or the company supplying the safety data sheet cannot be held liable for any damage, loss, injury, accident or similar occurrence arising from unforeseen or unintended use of the product, without knowing the circumstances of use or handling of the product. The operator shall comply with all legal provisions in force relating to the activity with the product.

The originator of the safety data sheet or the company supplying the safety data sheet shall not be held liable for any unforeseeable damage resulting from any modification of the safety data sheet and label supplied to the Client which is not carried out by the originator of the safety data sheet.