

Hypochlorous Acid Solution — Food and Food-Contact Surfaces

Revision 02 · 28 September 2026 · Supersedes Revision 01, 1 March 2018

SECTION 1: Identification

Product identifier	Electrolytically generated hypochlorous acid solution
Other means of identification	HOCl solution; electrolysed water; anolyte. Generated on site by an EcoloxTech electrolytic system.
Recommended use	Sanitation of food and food-contact surfaces
Restrictions on use	For the use described above only. Not for injection, inhalation therapy or internal medical use. Not to be diluted with, or mixed into, any acidic product (Section 10).
Supplier	EcoloxTech Inc., West Palm Beach, FL 33413, USA
Telephone	+1 561-783-8090 (business hours)
E-mail	sales@ecoloxtech.com
Emergency telephone	Health emergencies: Poison Control 1-800-222-1222 (USA, 24 hours). All other emergencies: +1 561-783-8090 during business hours.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

OSHA Hazard Communication Standard, 29 CFR 1910.1200: **Not classified**. On the composition given in Section 3, this mixture does not meet the criteria for classification in any physical, health or environmental hazard class.

2.2 Label elements

Pictogram	None required
Signal word	None required
Hazard statements	None required
Precautionary statements	None required. See Section 7 for handling and storage advice.

2.3 Hazards not otherwise classified (HNOC)

Contact with acid liberates chlorine gas. Do not mix this product with acidic cleaners, descalers, toilet cleaners or any other acid. Chlorine is an acute respiratory irritant; see Sections 8 and 10.

Mixing with ammonia or ammonia-based cleaners can form chloramines, which are also respiratory irritants.

The solution may bleach or discolour textiles and may corrode susceptible metals on prolonged contact. Spilled liquid makes floors slippery.

2.4 Ingredients of unknown acute toxicity

None. No component of this mixture is of unknown acute toxicity.

SECTION 3: Composition / information on ingredients

This product is a **mixture**.

Chemical name	Formula	CAS No.	EC No.	Concentration (% w/v)
Hypochlorous acid	HOCl	7790-92-3	232-232-5	≤ 0.006
Sodium chloride	NaCl	7647-14-5	231-598-3	< 0.05
Water	H ₂ O	7732-18-5	231-791-2	Balance to 100

No component is classified as a health or physical hazard at the concentration present, and no component is present above the cut-off value that would require disclosure as a hazardous ingredient. Full composition is given for transparency rather than because disclosure is triggered. No information is withheld as a trade secret.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

Inhalation	Adverse effects are not expected. Move the person to fresh air. If breathing is difficult or irritation persists, get medical advice.
Skin contact	Adverse effects are not expected. Rinse the skin with water. If irritation develops, get medical advice.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, then continue rinsing. If irritation persists, get medical advice.
Ingestion	Rinse the mouth and drink a glass of water. Adverse effects are not expected from the quantity likely to be swallowed. Do not induce vomiting. If the person feels unwell, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No symptoms are expected under the recommended conditions of use. A faint chlorine odour may be noticeable.

If chlorine gas has been liberated by mixing with acid, expect stinging eyes, coughing and throat irritation. Serious chlorine exposure can cause pulmonary oedema that is **delayed by several hours**.

4.3 Indication of immediate medical attention and special treatment

Treat symptomatically; there is no specific antidote. Following any significant inhalation of liberated chlorine, keep the person under medical observation for delayed respiratory effects even if they appear well initially.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable	The product is aqueous and non-combustible. Use any medium suitable for the surrounding fire — water spray, carbon dioxide, dry chemical or foam.
Unsuitable	None known.

5.2 Special hazards arising from the substance or mixture

Not flammable and does not support combustion. Heat from a surrounding fire will decompose the product and may liberate chlorine and hydrogen chloride. Closed containers may build pressure and rupture if heated.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing in any confined-space or container fire. Cool exposed containers with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No special measures are needed for the spill sizes normally encountered. Ventilate the area. Keep the spill away from acids. Take care: wet floors are slippery.

6.2 Environmental precautions

Do not discharge large volumes to surface water or to storm drains without consulting the local authority. Free chlorine is harmful to aquatic organisms, although the residual in this product degrades rapidly to chloride (Section 12).

6.3 Methods and material for containment and cleaning up

Contain the spill. Mop up, or absorb with an inert material such as cloth or paper towel, and rinse the area with water. Used cleaning materials may be disposed of as normal refuse.

6.4 Reference to other sections

See Section 8 for personal protection and Section 13 for disposal.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Maintain general industrial hygiene practice. **Never mix with acids, acidic cleaners or ammonia-based cleaners.** Do not transfer to an unlabelled container. Wash hands after use. Avoid contact with dark fabrics, which may be discoloured.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place in the original closed container, out of direct sunlight and away from UV light. Keep the container tightly closed when not in use. Do not store with acids, ammonia, hydrogen peroxide or reducing agents. Observe the shelf life stated on the product label; available chlorine declines over time.

SECTION 8: Exposure controls / personal protection**8.1 Control parameters**

Component	CAS No.	OSHA PEL	ACGIH TLV	NIOSH REL
Hypochlorous acid	7790-92-3	None established	None established	None established
Sodium chloride	7647-14-5	None established	None established	None established
Water	7732-18-5	None established	None established	None established

Chlorine is not a component of this product. It is listed here because it is a decomposition product (Section 10). OSHA PEL (general industry): 1 ppm (3 mg/m³) ceiling. NIOSH REL: 0.5 ppm (1.45 mg/m³) ceiling, 15 minutes. NIOSH IDLH: 10 ppm. ACGIH TLV-TWA: 0.5 ppm; TLV-STEL: 1 ppm — confirm against the current TLV booklet, as ACGIH values are revised annually.

8.2 Exposure controls

Engineering controls	General room ventilation is adequate for normal use. Where the product is sprayed or fogged, or used in a confined space, provide local exhaust or mechanical ventilation.
Eye and face protection	Not required for normal use. Wear safety glasses where splashing is possible.
Skin protection	Not required for normal use. Nitrile, latex or vinyl gloves and a chemical apron may be worn where prolonged contact is likely.
Respiratory protection	Not required with adequate ventilation. Do not deliberately breathe mist or vapour.
Thermal hazards	None.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Property	Value
Physical state	Liquid
Colour	Colourless
Odour	Faint chlorine odour
Odour threshold	Not determined for the mixture
pH	5 – 8
Melting point / freezing point	Approximately 0 °C (32 °F)
Boiling point / boiling range	Approximately 100 °C (212 °F), with decomposition
Flammability	Not flammable
Lower and upper explosion limit	Not applicable
Flash point	Not applicable — aqueous solution
Auto-ignition temperature	Not applicable

Property	Value
Decomposition temperature	Not determined. Available chlorine is lost on heating and on exposure to UV light.
Vapour pressure	Approximately 2.3 kPa at 20 °C (as water)
Vapour density (air = 1)	Approximately 0.62 (as water vapour)
Relative density	1.01 at 20 °C
Solubility in water	Miscible
Partition coefficient n-octanol/water	Not applicable — inorganic aqueous solution
Viscosity	Approximately 1 mPa·s at 20 °C (as water)
Particle characteristics	Not applicable — liquid

9.2 Other information

No explosive properties. No oxidising properties at the concentration present. Values shown as "as water" are those of the aqueous carrier, which dominates the physical behaviour of the mixture at these concentrations.

SECTION 10: Stability and reactivity

10.1 Reactivity	Not reactive under the recommended conditions of use and storage.
10.2 Chemical stability	Stable in the closed original container under the conditions in Section 7. Available chlorine declines with heat, UV exposure and time; see the product label for shelf life.
10.3 Possibility of hazardous reactions	Reacts with acids to liberate chlorine gas. Reacts with ammonia and amines to form chloramines.
10.4 Conditions to avoid	Heat, direct sunlight and UV light.
10.5 Incompatible materials	Acids, ammonia and amines, hydrogen peroxide, reducing agents, heavy metals and ethers.
10.6 Hazardous decomposition products	Chlorine (Cl ₂). Chloramines if mixed with ammonia-based products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Likely routes of exposure Skin contact, eye contact and inhalation of mist are the routes relevant to normal use. Ingestion is possible but unlikely.

Endpoint	Classification
Acute toxicity — oral	Not classified
Acute toxicity — dermal	Not classified
Acute toxicity — inhalation	Not classified
Skin corrosion / irritation	Not classified
Serious eye damage / eye irritation	Not classified
Respiratory sensitisation	Not classified
Skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity — single exposure	Not classified

Endpoint	Classification
Specific target organ toxicity — repeated exposure	Not classified
Aspiration hazard	Not classified

Numerical measures of toxicity

No acute toxicity estimate has been determined for the mixture as supplied. Component data: sodium chloride, oral LD50 (rat) approximately 3,000 mg/kg body weight. No component is present at a concentration that would contribute to classification.

Carcinogen listings

No component of this product is listed by the National Toxicology Program (NTP) Report on Carcinogens, by the International Agency for Research on Cancer (IARC), or as a carcinogen by OSHA.

Symptoms

No symptoms are expected from the product as supplied. Symptoms arising from chlorine liberated by mixing with acid are described in Section 4.2.

SECTION 12: Ecological information

12.1 Toxicity	Not determined for the mixture. Free chlorine is toxic to aquatic organisms at low concentrations; the residual present in this product degrades rapidly to chloride on contact with organic matter and on standing, so a persistent effect from normal use and disposal is not expected.
12.2 Persistence and degradability	The hypochlorous acid component degrades rapidly. The residue is sodium chloride in water.
12.3 Bioaccumulative potential	None expected. The components are inorganic and do not bioaccumulate.
12.4 Mobility in soil	Miscible with water and fully mobile.
12.5 Other adverse effects	None known. Not an ozone-depleting substance.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

In the form supplied, this product is not a listed hazardous waste under 40 CFR 261 Subpart D, and it does not exhibit a characteristic of hazardous waste under 40 CFR 261 Subpart C. In particular it is not corrosive under 40 CFR 261.22, which applies to aqueous wastes with a pH of 2 or lower or 12.5 or higher.

Small quantities may be flushed to sanitary sewer or disposed of with normal refuse where local regulations permit. Confirm against state and local rules, which may be more restrictive than the federal position above.

Contaminated packaging

Empty containers should be rinsed and taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

This product is **not regulated as a dangerous good** by US DOT (49 CFR), IATA or IMDG.

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	None
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not a marine pollutant
14.6 Special precautions for user	None
14.7 Transport in bulk	Not applicable

SECTION 15: Regulatory information

TSCA	All components of this product are listed on the TSCA Inventory or are otherwise exempt from listing.
TSCA 12(b)	This product is not subject to TSCA 12(b) export notification.
SARA Title III, Section 302	This product contains no extremely hazardous substances.
SARA Title III, Section 304	This product contains no chemicals subject to release reporting.
SARA Title III, Section 313	This product contains no chemicals reportable under Section 313.
CERCLA	This product contains no chemicals with a CERCLA reportable quantity.
FIFRA	The solution covered by this sheet is generated on site by an EcoloxTech electrolytic system and is not an EPA-registered pesticide product. It carries no EPA registration number.
California Proposition 65	No component is known to the State of California to cause cancer or reproductive harm at a concentration requiring a warning.

SECTION 16: Other information

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Summary of changes in this revision

Restructured to the sixteen sections and section content required by 29 CFR 1910.1200 Appendix D, including the Section 9 property list and Section 11 endpoint list as amended by the 2024 final rule aligning the Hazard Communication Standard with GHS Revision 7. Added the GHS classification and label-element block (Section 2), occupational exposure limits (Section 8), the full physical-property and toxicological-endpoint lists, and an emergency contact. Corrected the waste citation, the transport entry and the SARA/CERCLA statements. Company contact details updated.

Abbreviations

ACGIH – American Conference of Governmental Industrial Hygienists. ATE – acute toxicity estimate. CAS – Chemical Abstracts Service. CERCLA – Comprehensive Environmental Response, Compensation and Liability Act. EC – European Community. GHS – Globally Harmonized System. HCS – Hazard Communication Standard. HNOC – hazards not otherwise classified. IARC – International Agency for Research on Cancer. IDLH – immediately dangerous to life or health. LD50 – median lethal dose. NIOSH – National Institute for Occupational Safety and Health. NTP – National Toxicology Program. OSHA – Occupational Safety and Health Administration. PEL – permissible exposure limit. REL – recommended exposure limit. SARA – Superfund Amendments and Reauthorization Act. STEL – short-term exposure limit. TLV – threshold limit value. TSCA – Toxic Substances Control Act. TWA – time-weighted average.

Disclaimer

The information in this safety data sheet is based on the present state of our knowledge and applies to the product as supplied. It describes the product with regard to appropriate safety precautions and is not a guarantee of the properties of the product. The user is responsible for determining that the product is suitable for the intended use and for complying with all applicable federal, state and local requirements.