

Ultra Pure Hypochlorous Acid Hydrogel — Cosmetic Grade

Revision 01 · 9 October 2026 · Supersedes no previous issue — this is the first issue for this product

SECTION 1: Identification

Product identifier	Ultra Pure Hypochlorous Acid Hydrogel
Other means of identification	Hypochlorous acid hydrogel; HOCl gel. Cosmetic grade. The hypochlorous acid is produced by electrolysis from FCC-grade sodium chloride and RO/DI water and gelled with magnesium silicate. No preservatives, fragrance, colourants or surfactants are added.
Recommended use	Cosmetic topical application to external skin — leave-on gel, and comparable spreadable cosmetic formats
Restrictions on use	External cosmetic use only. Application to the external eyelid, the lash line and the surrounding skin is within this scope, with the eye closed. Not for instillation into the eye or for any other intraocular or ophthalmic use, and not for injection, inhalation therapy, application to open wounds or any internal medical use. Not to be mixed into, or diluted with, any other product (Sections 7 and 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.

Where this product is supplied in bulk for filling under another brand, the "responsible person" for the finished cosmetic under 21 U.S.C. 364 is the party named on that finished product label, not the supplier named above. See Section 15.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

OSHA Hazard Communication Standard, 29 CFR 1910.1200: **Not classified as hazardous under GHS at the supplied concentrations.** On the composition given in Section 3, this mixture does not meet the criteria for classification in any physical, health or environmental hazard class. Magnesium silicate is not classified as a health or physical hazard, and in this product it is wetted and dispersed in the aqueous gel, so the inhalation route that governs mineral powders does not arise from the product as supplied.

2.2 Label elements

Pictogram	None required
Signal word	None required
Hazard statements	None required
Precautionary statements	None required under the HCS. See Section 7 for handling and storage advice, which should be reflected on the finished cosmetic label.

2.3 Hazards not otherwise classified (HNOC)

May cause mild eye irritation. The effect is transient and sits below the threshold for classification as an eye irritant, which is why it appears here rather than in 2.1. Apply around the eye with the eye closed; rinse with water if the product enters the eye (Section 4).

Do not mix with any chemicals. This product is supplied ready to use and is not a base for blending. Contact with acid liberates chlorine gas, and contact with ammonia or amines forms chloramines; both are respiratory irritants. Mixing also destroys the active and the gel structure.

Dry magnesium silicate powder is a nuisance dust. This applies to the raw material before it is dispersed, not to the finished gel. Where the dry powder is weighed or charged in manufacture, avoid generating dust and see the exposure limits in Section 8.

The product may bleach or discolour textiles on prolonged contact. Spilled gel makes floors slippery, and remains slippery after the water has evaporated.

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/w)
Hypochlorous acid	HOCl	7790-92-3	232-232-5	0.012 – 0.03
Magnesium silicate	MgSiO ₃	1343-88-0	215-681-1	2.8
Sodium chloride	NaCl	7647-14-5	231-598-3	0.2 – 0.3
Water	H ₂ O	7732-18-5	231-791-2	Balance to 100

INCI declaration

Aqua (Water), Magnesium Silicate, Sodium Chloride, Hypochlorous Acid. Listed in descending order of predominance. No preservatives, fragrance, colourants, surfactants or other additives are present.

The sodium chloride is not added as an ingredient. It is the residue of the FCC-grade salt from which the hypochlorous acid is generated by electrolysis, and it is declared because 21 CFR 701 requires the ingredient statement to list what is present in the finished cosmetic, not only what was added deliberately.

Magnesium silicate grade

The magnesium silicate used is a **synthetic magnesium silicate**, CAS 1343-88-0, and is not talc. The distinction matters: talc is a separate substance with its own CAS number (14807-96-6) and its own carcinogenicity evaluation, and talc may carry asbestiform contamination. See Section 11. The grade used is specified asbestos-free; a certificate of analysis for each lot is held on file and is available to customers on request.

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.

Hypochlorous acid is the active and it declines over the shelf life of the product. The range above is the specification as supplied; see Sections 7 and 10 for the conditions that preserve it.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, then continue rinsing. Gel is more persistent on the eye surface than a solution, so rinse for longer rather than less. If discomfort persists, get medical advice.
Skin contact	This is a leave-on cosmetic and no adverse effect is expected. If irritation develops, discontinue use and rinse the skin with water. If irritation persists, get medical advice.
Inhalation	Adverse effects are not expected from the gel, which does not form a mist. Move the person to fresh air. If breathing is difficult or irritation persists, get medical advice. For inhalation of dry magnesium silicate powder during manufacture, move to fresh air and get medical advice if coughing persists.
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. Mild, temporary eye discomfort is possible if the product enters the eye.

If chlorine gas has been liberated by mixing with an 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 drive off the water and decompose the active, and may liberate chlorine and hydrogen chloride. The magnesium silicate residue is inert but may be left as a fine dry powder once the water has gone. 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: spilled gel is slippery, and stays slippery after it dries.

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). Magnesium silicate is insoluble and will settle as a sediment rather than disperse.

6.3 Methods and material for containment and cleaning up

Contain the spill. Scrape or absorb the bulk with an inert material, then wash the area with water — gel residue needs rinsing, not just wiping, or it dries to a slippery film. Used cleaning materials may be disposed of as normal refuse. Avoid letting large quantities dry out and become airborne as dust.

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

Avoid UV and heat. Keep the container sealed. Do not mix with chemicals.

Maintain general hygiene practice. Do not transfer the product to an unlabelled container. Do not decant into a container that has held another product. Avoid contact with dark fabrics, which may be discoloured. Where the dry magnesium silicate raw material is handled in manufacture, avoid generating airborne dust and see Section 8.

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. Do not freeze: freezing and thawing may break the gel structure irreversibly and cause the silicate to separate. Keep the container tightly closed when not in use. Opaque or UV-blocking packaging is recommended for the finished product. 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, with heat and with light exposure.

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
Magnesium silicate	1343-88-0	None established for this substance by name. As a particulate not otherwise regulated, 29 CFR 1910.1000 Table Z-1: 15 mg/m ³ total dust, 5 mg/m ³ respirable fraction, 8-hour TWA.	None established for this substance by name. Particles (insoluble or poorly soluble) not otherwise specified: 10 mg/m ³ inhalable, 3 mg/m ³ respirable, 8-hour TWA.	None established
Sodium chloride	7647-14-5	None established	None established	None established
Water	7732-18-5	None established	None established	None established

The particulate limits above apply to the dry magnesium silicate raw material, not to the product as supplied. In the finished hydrogel the silicate is wetted and bound in the gel, and no respirable dust is generated in normal handling or use. They are listed because the limits are the ones a manufacturing or filling site would need.

Limits for talc (CAS 14807-96-6) are sometimes quoted for magnesium silicates generally. They are not used here, because talc is a different substance and is not a component of this product — see Section 3.

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

No personal protective equipment is required for consumer use. Safety glasses are recommended when handling the product in bulk, and dust control is required where the dry silicate is charged.

Engineering controls	None required for consumer use. In a filling operation, general room ventilation is adequate. Where dry magnesium silicate is weighed or charged, provide local exhaust ventilation or an enclosed transfer.
Eye and face protection	None required for consumer use. Safety glasses for bulk handling, decanting and filling, and when handling the dry powder.
Skin protection	None required — the product is formulated for application to skin. Gloves may be worn in a filling operation as a product-hygiene measure rather than a safety one.
Respiratory protection	None required for the finished gel with adequate ventilation. Where dry magnesium silicate dust cannot be controlled at source, use a NIOSH-approved N95 or better particulate respirator under a written respiratory protection programme (29 CFR 1910.134).
Thermal hazards	None.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value
Physical state	Semi-solid — viscous aqueous gel
Colour	Translucent to opaque white
Odour	Faint chlorine odour
Odour threshold	Not determined for the mixture
pH	5.0 – 6.5
Melting point / freezing point	Approximately 0 °C (32 °F) — the aqueous phase freezes and the gel structure may not recover (Section 7.2)

Property	Value
Boiling point / boiling range	Approximately 100 °C (212 °F), with decomposition and loss of the aqueous phase
Flammability	Not flammable
Lower and upper explosion limit	Not applicable
Flash point	Not applicable — aqueous gel
Auto-ignition temperature	Not applicable
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	Approximately 1.02 – 1.04 at 20 °C
Solubility in water	The aqueous phase is miscible. Magnesium silicate is practically insoluble and disperses rather than dissolves.
Partition coefficient n-octanol/water	Not applicable — inorganic aqueous system
Viscosity	Not determined for this formulation. The product is a shear-thinning gel; state the measured value and the method on the product specification.
Particle characteristics	Not applicable to the product as supplied — the silicate is dispersed in the aqueous phase and the product is not a dust. See Section 8 for the dry raw material.

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. Magnesium silicate is chemically inert in this system.
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. Freezing, and prolonged high shear, which may break the gel structure.
10.5 Incompatible materials	Acids, ammonia and amines, hydrogen peroxide, reducing agents, heavy metals and ethers. Added electrolytes and polyvalent cations may destabilise the silicate gel network. Do not combine with any other cosmetic ingredient or formulation without stability testing.
10.6 Hazardous decomposition products	Chlorine (Cl ₂). Chloramines if mixed with ammonia-based products. On evaporation to dryness, a residue of magnesium silicate powder, which is a nuisance dust rather than a hazardous decomposition product.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

No component is classified for any health endpoint at the concentration present. Mild, temporary eye discomfort is possible on direct eye contact.

Testing status of this formulation

This hydrogel has not itself been the subject of a human repeat insult patch test. EcoloxTech holds HRIPT data on its cosmetic-grade hypochlorous acid solution, with a result of zero erythema at every reading in 53 completed subjects. **That study was conducted on the solution and does not extend to this formulation**, which contains a gelling agent the tested material did not and which changes contact time on the skin. The entries below for skin irritation and skin sensitisation therefore rest on the composition and on the established tolerability of the individual components, not on testing of the finished gel. A formulation-specific HRIPT is the appropriate substantiation under 21 U.S.C. 364d and is recommended before the product is placed on the market.

Likely routes of exposure

Dermal contact is the intended route of exposure, including the skin of the external eyelid and lash line. Contact with the eye itself is incidental to normal use. Ingestion is possible but unlikely. Inhalation of the finished gel is not a realistic route; inhalation of the dry silicate raw material is a manufacturing exposure only.

Endpoint	Classification
Acute toxicity — oral	Not classified
Acute toxicity — dermal	Not classified
Acute toxicity — inhalation	Not classified
Skin corrosion / irritation	Not classified. Based on composition — see the testing status note above.
Serious eye damage / eye irritation	Not classified. Mild, transient discomfort possible — see Section 2.3.
Respiratory sensitisation	Not classified
Skin sensitisation	Not classified. Based on composition — see the testing status note above.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified. See the carcinogen listings below, which address talc.
Reproductive toxicity	Not classified
Specific target organ toxicity — single exposure	Not classified
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: magnesium silicate is of very low acute oral toxicity, with published oral LD50 values for magnesium silicates in the rat exceeding 5,000 mg/kg body weight; 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 or as a carcinogen by OSHA.

On the International Agency for Research on Cancer and talc. In July 2024, IARC Monographs Volume 136 classified **talc** as *probably carcinogenic to humans* (Group 2A), on limited evidence in humans for ovarian cancer, sufficient evidence in experimental animals and strong mechanistic evidence. Talc is **not a component of this product**: the gelling agent is synthetic magnesium silicate, CAS 1343-88-0, which is a different substance from talc, CAS 14807-96-6, and was not within the scope of that evaluation. The entry appears here because the two are often conflated under the common name "magnesium silicate", and because a reader checking the ingredient deserves a straight answer rather than silence. Separately, talc containing asbestos falls under asbestos, which IARC classified as Group 1 in 2009; the material used in this product is specified asbestos-free (Section 3).

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. Prolonged, heavy inhalation of dry mineral dust in manufacture may cause coughing and upper respiratory irritation.

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. Magnesium silicate is inert and of low concern to aquatic life, but in quantity it can blanket a sediment bed.
12.2 Persistence and degradability	The hypochlorous acid component degrades rapidly; the residue is chloride in water. Magnesium silicate is a mineral and does not biodegrade; it settles and persists as an inert solid.
12.3 Bioaccumulative potential	None expected. The components are inorganic and do not bioaccumulate.
12.4 Mobility in soil	The aqueous phase is fully mobile. Magnesium silicate is insoluble and remains where it is deposited.
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 disposed of with normal refuse where local regulations permit. **Do not flush bulk quantities of gel to drain** — the insoluble silicate can accumulate in traps and lines. 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	Protect from heat, freezing and direct sunlight in transit, for product quality rather than for safety.
14.7 Transport in bulk	Not applicable

SECTION 15: Regulatory information

FD&C Act — cosmetic status	This product is a cosmetic as defined in section 201(i) of the Federal Food, Drug, and Cosmetic Act. It is not a drug and not a pesticide.
MoCRA	Subject to the Modernization of Cosmetics Regulation Act of 2022, including facility registration and product listing (21 U.S.C. 364a and 364b), adverse event reporting (364c), safety substantiation records (364d) and good manufacturing practice (364e). For a finished product filled under another brand, these obligations fall on the responsible person named on that label. Note that the substantiation record for this formulation is incomplete — see Section 11.
Cosmetic labelling	Finished product labelling must meet 21 CFR 701, including the ingredient declaration in descending order of predominance using the INCI names in Section 3, and the domestic address or telephone number for adverse event reports required by MoCRA.
TSCA	A substance manufactured, processed or distributed for use in a cosmetic is excluded from the definition of "chemical substance" by TSCA section 3(2)(B)(vi), so TSCA does not apply to this product in its cosmetic use. The individual components are nonetheless listed on the TSCA Inventory.
FIFRA and claims	This product is not an EPA-registered pesticide and carries no EPA registration number. No antimicrobial, disinfectant, sanitising, anti-acne, wound-care or other therapeutic claim may be made for it: a claim of that kind would make the product an unregistered pesticide under FIFRA or an unapproved new drug under the FD&C Act. Where a registered antimicrobial is required, see HOCl-AS200, EPA Reg. No. 101112-1, used according to its accepted label.
SARA Title III, Sections 302, 304 and 313	This product contains no extremely hazardous substances, no chemicals subject to release reporting and no chemicals reportable under Section 313.
CERCLA	This product contains no chemicals with a CERCLA reportable quantity.
California Proposition 65	No component is known to the State of California to cause cancer or reproductive harm at a concentration requiring a warning. Talc is not a component of this product (Sections 3 and 11).

SECTION 16: Other information

Date of preparation / last revision	9 October 2026
Revision number	01
Supersedes	no previous issue — this is the first issue for this product

First issue

This is the first safety data sheet issued for this product. It is prepared to the sixteen sections and section content required by 29 CFR 1910.1200 Appendix D, including the Section 9 property list and the Section 11 endpoint list as amended by the 2024 final rule aligning the Hazard Communication Standard with GHS Revision 7. It follows the house format used for the EcoloxTech cosmetic-grade, general sanitation, food sanitation and HOCl-AS200 sheets.

Matters a reader should not have to find for themselves

Two things on this sheet are deliberately explicit rather than implied. First, the human repeat insult patch test EcoloxTech holds was carried out on the cosmetic-grade *solution* and is not substantiation for this gelled formulation (Section 11). Second, IARC's 2024 Group 2A classification of talc does not apply to the synthetic magnesium silicate used here, but the two share a common name and the sheet says so rather than leaving a reader to guess (Sections 3, 11 and 15).

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. FCC – Food Chemicals Codex. FD&C Act – Federal Food, Drug, and Cosmetic Act. FIFRA – Federal Insecticide, Fungicide, and Rodenticide Act. GHS – Globally Harmonized System. HCS – Hazard Communication Standard. HNOC – hazards not otherwise classified. HRIPT – human repeat insult patch test. IARC – International Agency for Research on Cancer. IDLH – immediately dangerous to life or health. INCI – International Nomenclature of Cosmetic Ingredients. LD50 – median lethal dose. MoCRA – Modernization of Cosmetics Regulation Act of 2022. 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. RO/DI – reverse osmosis / deionised. 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.