

SARAYASARAYA CO., LTD.
SAFETY DATA SHEET**Product name:** Clean.Pro Hypochlorous Acid Sodium**Date written:** Jun. 23, 2021**Date revised:** -**Date translated:** Aug. 31, 2021**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product name** Clean.Pro Hypochlorous Acid Sodium**Supplier** SARAYA CO., LTD.
2-2-8 Yuzato, Higashisumiyoshi-ku,
Osaka, JAPAN 546-0013
Global Operations Division
Tel. No. : +81-6-6703-6336
Fax No. : +81-6-6703-4466**2. HAZARDS IDENTIFICATION****GHS Classification****Health Hazards**

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2
Specific target organ/systemic toxicity following single exposure	Category 2
Specific target organ/systemic toxicity following repeated exposure	Category 2

Environmental hazards

Acute aquatic toxicity	Category 2
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GHS label elements**Pictograms****GHS Signal word**

Danger

Hazard statementsCauses severe skin burns
Causes serious eye damage

SARAYA CO., LTD.
SAFETY DATA SHEET**Product name:** Clean.Pro Hypochlorous Acid Sodium**Date written:** Jun. 23, 2021**Date revised:** -**Date translated:** Aug. 31, 2021

Suspected of damaging fertility or the unborn child
May cause damage to organs
May cause damage to organs through prolonged or repeated exposure
Toxic to aquatic life

Precautionary statements

[Prevention]

Do not breathe dust, fumes, gas, mist, vapors or spray.
Wear protective gloves, protective clothing, eye protection and face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash hands, eyes and throat thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Avoid release to the environment.

[Response]

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a doctor.
Specific treatment (see section 4, First aid measures)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If exposed or concerned: Get medical attention.
Get medical attention if you feel unwell.

[Storage]

Store locked up.

[Disposal]

Disposal of contents or container should be done in accordance with local, regional, national and international regulations.

Other hazards which do not result in classification

Contact with acids liberates toxic chlorine gas.
Causes corrosion of metals and most natural fibers.

SARAYASARAYA CO., LTD.
SAFETY DATA SHEET**Product name:** Clean.Pro Hypochlorous Acid Sodium**Date written:** Jun. 23, 2021**Date revised:** -**Date translated:** Aug. 31, 2021**3. COMPOSITION / INFORMATION ON INGREDIENTS****Substance/Preparation** Substance**Components**

Chemical name	CAS No.	Concentration (%w/w)
SODIUM HYPOCHLORITE	7681-52-9	5–6

4. FIRST AID MEASURES**Inhalation**

Immediately evacuate the patient to a well-ventilated area. Allow the patient to rest and immediately seek medical attention. It may be fatal if medical attention is delayed.

Skin contact

Immediately wash off the product with plenty of water. Immediately remove clothing and shoes contaminated by the product. May cause skin irritation if medical attention is delayed.

Eye contact

Immediately flush eyes with clean running water for at least 15 minutes, and then immediately seek medical attention.

May cause loss of vision if medical attention is delayed.

Ingestion

Immediately drink plenty of water.

The most serious symptoms and effects

Accidental ingestion may cause burns and sharp pain in the mouth, esophagus and stomach. In rare cases, pinholes may develop in the esophagus or stomach.

Contact with acids liberates chlorine gas that can cause skin inflammation.

Degree of corrosiveness is similar to caustic soda (sodium hydroxide), and it irritates the skin and mucus membranes.

If skin is exposed for prolonged periods of time, irritation may lead to eczema or dermatitis.

If the product gets in the eyes, it will cause severe eye irritation. Affects the cornea if not immediately flushed out.

Inhalation of poisonous chlorine gas may result in breathing difficulties.

Inhalation of product mist irritates the respiratory tract membrane, and causes hoarse voice, sharp

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SAFETY DATA SHEET**Product name:** Clean.Pro Hypochlorous Acid Sodium**Date written:** Jun. 23, 2021**Date revised:** -**Date translated:** Aug. 31, 2021

throat pains, intense coughing and pulmonary edema.

5. FIRE FIGHTING MEASURES**Suitable extinguishing media**

If fire occurs in the surrounding area, use suitable extinguishing media for that fire type.

Instructions

Product itself is non-combustible. If fire occurs in the surrounding area, transfer the container to a safe place. If it is impossible to move the container, cool the container with a water spray.

6. ACCIDENTAL RELEASE MEASURES**Personal precaution, protective equipment and emergency procedures**

Wear protective equipment such as protective goggles, mask and rubber gloves.

Spilled material may harm humans and damage clothing. Carefully avoiding contact, wash away the spilled material with large amounts of water.

Inspect containers to ensure there is no risk of further leakage.

DO NOT neutralize the product with acids. (Poisonous chlorine gas will be produced when product comes into contact with acids).

7. HANDLING AND STORAGE**Handling**

- ① Take care when opening the cap to avoid spilling the product.
- ② Metallic contamination or an increase in liquid temperature will act to hasten decomposition of the product, which may result in liquid overflow.
- ③ Use only specified containers when transferring the product. Take care to avoid material spills when transferring the product, and use only specified containers that have been pre-cleaned.
- ④ Use in a well-ventilated area.
- ⑤ Do not use in combination with other cleaners.
- ⑥ Use water at room temperature or cold water for dilution. DO NOT use hot water for dilution.
- ⑦ Set-up hand and eye washing stations near the areas where the product is stored or handled.
- ⑧ If accidentally mixed with acid, immediately wash away with large amounts of water. If sodium hydroxide or other alkaline materials are found near the vicinity, add them to prevent further emission of chlorine gas.

If there is a danger that large amounts of chlorine gas will spread to the surrounding area, contact the proper personnel and evacuate to an upwind position.

SARAYA

SARAYA CO., LTD. SAFETY DATA SHEET

Product name: Clean.Pro Hypochlorous Acid Sodium

Date written: Jun. 23, 2021

Date revised: -

Date translated: Aug. 31, 2021

- ⑨ Use the product only for its intended purposes.
- ⑩ Avoid using the undiluted product.
- ⑪ Do not use for bleaching sesame.
- ⑫ When not feeling well, do not use the product. During use, if the product gets in the eyes, causes coughing, or causes one to feel sick, immediately stop using the product and move away from the area. Flush the eyes with water and rinse the mouth by gargling.

Storage

Conditions for safe storage

- ① Store in a cool area away from direct sunlight. Close the lid tightly after use.
- ② Keep out of reach of children.
- ③ Taking into consideration that the material may spill, store the product in a designated area where the harm to humans and damage to surrounding materials are kept to a minimum.
- ④ Long-term storage will result in a decrease in the effective chlorine concentration.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering control

Keep area well ventilated.

Furthermore, if the product is to be used in large amounts, use local and/or building exhaust systems. Install hand washing and emergency eye washing stations.

Management concentrations

A concentration value for managing the material has not been set.

Control parameter

Japan Society for Occupational Health (1992) : Not listed.

ACGIH (1992–1993) : Not listed.

Personal protection

Use suitable protective equipment such as protective goggles and rubber gloves.

Wear respiratory protective equipment depending on amount of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state

Liquid

Color

Clear, pale yellow-green

SARAYA

SARAYA CO., LTD. SAFETY DATA SHEET

Product name: Clean.Pro Hypochlorous Acid Sodium

Date written: Jun. 23, 2021

Date revised: -

Date translated: Aug. 31, 2021

Odor	Chlorine odor
pH value	11.8–12.4
Specific gravity (20 °C)	1.072
Solubility	Soluble in water

10. STABILITY AND REACTIVITY

Chemical stability

Gradually decomposes at room temperature, producing oxygen and a salt.

Extremely unstable when in contact with air, heat, light and metals. If left in contact, may gradually lose effective chlorine concentration.

Possibility of hazardous reactions

Not self-reactive. Not explosive.

Reacts with acids, liberating toxic chlorine gas.

Highly corrosive to metals.

Conditions to avoid

Do not use a metallic container because it is corrosive to metal.

Incompatible materials

Decrease in pH can lead to the liberation of chlorine gas.

Hazardous decomposition products

Mixing with acids liberates chlorine gas.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Classification not possible

Skin corrosion/irritation

Category 1 (causes severe skin burns and eye damage)

Serious eye damage/eye irritation

Category 1 (causes serious eye damage)

Respiratory sensitization/skin sensitization

SARAYASARAYA CO., LTD.
SAFETY DATA SHEET**Product name:** Clean.Pro Hypochlorous Acid Sodium**Date written:** Jun. 23, 2021**Date revised:** -**Date translated:** Aug. 31, 2021

Classification not possible

Mutagenicity

Classification not possible

Carcinogenicity

Classification not possible

Reproductive toxicity

Category 2 (suspected of damaging fertility or the unborn child)

Specific target organ/systemic toxicity following single exposure

Category 2 (may cause damage to organs)

Specific target organs/systemic toxicity following repeated exposure

Category 2 (may cause damage to organs through prolonged or repeated exposure)

Aspiration hazard

Classification not possible

Teratogenicity

Not known

Metabolism

Not known

Reference values for sodium hypochlorite:**Eye irritation:** Strong irritant. May damage the cornea.**Acute toxicity:** Mouse, oral LD50 Male:6.8 mL/kg Female5.8 mL/kg (effective choline concentration of 10%) (Reference material 10)

Child oral lethal dose 15-13mL (5% solution) (Reference material 11)

Sub-acute toxicity: When introduced into the drinking water of F-334 rats, weight loss was observed when a 0.25% solution was given for 2 weeks, and when a 0.2% solution was given for 13 weeks.**12. ECOLOGICAL INFORMATION**

SARAYA

SARAYA CO., LTD. SAFETY DATA SHEET

Product name: Clean.Pro Hypochlorous Acid Sodium

Date written: Jun. 23, 2021

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Date translated: Aug. 31, 2021

Ecotoxicity

Not known

Persistence and degradability

Not known

Decomposition: Gradually decomposes in water.

(Reference values)

Ichthyotoxicity: Toxic to aquatic organisms

Reference values for 12% sodium hypochlorite:

American minnow TLm (96 hours) 59 mg/L

Shrimp TLm (96 hours) 52 mg/L

13. DISPOSAL CONSIDERATIONS

See section 7, Handling and storage

International regulations

Disposal should be done in accordance with local, state, and national laws.

Waste residues

Dispose with a large quantity of water to dilute.

Used container

Wash off remaining residues with water.

14. TRANSPORT INFORMATION

See section 7, Handling and storage

UN regulations

UN classification

Hypochlorite solution (Class 8, Packing group III)

UN number

1791

SARAYA

SARAYA CO., LTD. SAFETY DATA SHEET

Product name: Clean.Pro Hypochlorous Acid Sodium

Date written: Jun. 23, 2021

Date revised: -

Date translated: Aug. 31, 2021

Not applicable as flammable liquids

Specific precautionary transport measures and conditions

Avoid long-distance transportation because the product decomposes easily.

Avoid transportation under direct sunlight, as the product decomposes quicker under higher temperatures.

Contact with acid will produce toxic chlorine gas and thus, the product should not be transported together with acids.

Stack the containers such that the cap (gas-venting cap) is on top.

Confirm that there is no leakage, spillage or runoff. Take suitable measures to stabilize the containers and prevent them from falling, tumbling down or otherwise being damaged.

15. REGULATORY INFORMATION

International regulations

It is the responsibility of the user to know and comply with all relevant rules, regulations and laws in the local, state, national and international level relating to the product being used.

16. OTHER INFORMATION

Reference material

- 1) Chemical Disaster Prevention Guidelines Vol.7, edited by the Chemical Society of Japan, Maruzen (1980).
- 2) Safety & Health Handbook 1992, edited by the Japan Soda Industry Association
- 3) Hazardous Substance Data Book, edited by the Tokyo United Association for Disaster Prevention, Maruzen (1988).
- 4) Manual for the Transport, Facilities and Handling of Hypochlorous Acid Soda, edited by the Japan Soda Industry Association (1990).
- 5) Yoshikawa et al., Health Examination Report, 98, 62, (1980).
- 6) Hazardous Substance Handbook, edited by Gunter Hummel, translated by Rokuro Nii, Springer-Verlag Tokyo Co., Ltd. (1991).
- 7) Sodium Hypochlorite MSDS, Japan Food Additives Association
- 8) Japan Food Detergent Sanitation Association
- 9) National Institute of Technology and Evaluation GHS Classification result
- 10) Junko Monma et al.,: Journal of the Food Hygienics Society of Japan, Vol.27, p.553-560 (1986)
- 11) Hazardous Substance Data Book, edited by the Tokyo United Association for Disaster Prevention, Maruzen (1993).

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SAFETY DATA SHEET**Product name:** Clean.Pro Hypochlorous Acid Sodium**Date written:** Jun. 23, 2021**Date revised:** -**Date translated:** Aug. 31, 2021**Disclaimer**

Any of the above information may be changed without prior notice.

This document is complete and thorough to the best of our knowledge.

Note that information is provided in order to use the product safely, not to guarantee the safety of the product.

Precaution is intended normal handling, but new safety measure which is suited new usage should be prepare when the product used with special handling.

Use the product properly according to its specifications.

As with all chemicals, at the present time there are some unknown facts about the chemicals contained in this product and thus, the product should be handled with care. It is the responsibility of each individual user to set the conditions in which the product can be safely used.