



CLFine™

Ionless™ Hypochlorous Acid Water



Prevention for airborne bacteria and viruses

Effective chloride concentration $40 \pm 10 \text{ ppm}$

Less than NaCl 10 mg/L

pH $5.0 \sim 6.5$

Using the technology cultivated in the medical field for many years, Nipro would like to propose Ionless™ Hypochlorous Water that will disinfect and reduce indoor airborne bacteria.

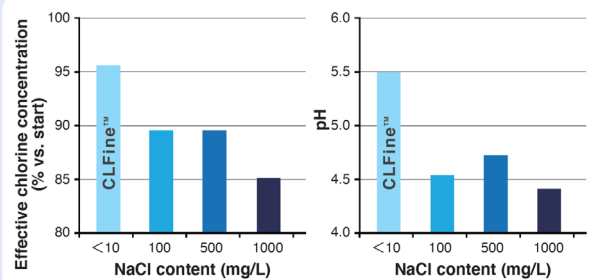
*Ionless
Less than NaCl 10 mg/L and total amount of ions other than NaCl of 15 mg/L or less (Nipro standard)

Ionless™ Hypochlorous Water

CLFine™ is made from Japanese Pharmacopoeia sodium chloride and purified water. JIS B 8701:2017 It is manufactured using a dedicated device (three-chamber electrolytic hypochlorous water generator) that complies with hypochlorous water generators, which reduces ions such as NaCl, nitrate ions, and sulfate ions. Water quality also complies with the water quality standards stipulated in the JIS standard.

Stability Storage condition: $40^\circ\text{C} - 1 \text{ month}$

Standard : Effective chlorine concentration $40 \pm 10 \text{ ppm}$ ($30 \text{ ppm} = 65\%$ vs. start)
pH $5.0 \sim 6.5$
Chloric acid content less than 0.6 ppm (Tap water quality standards)



Tested safe for indoor use

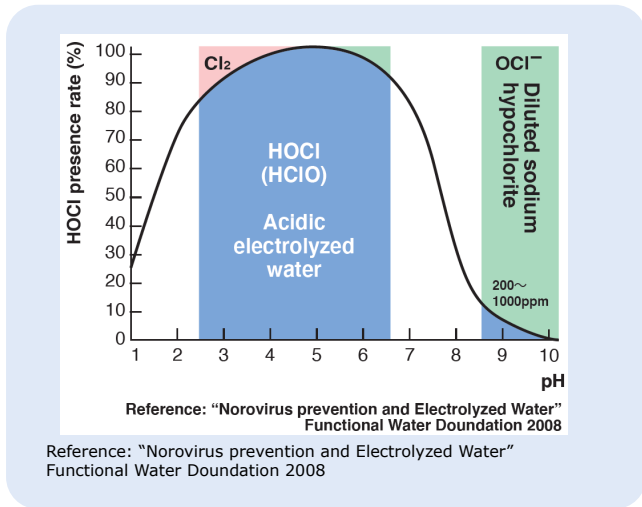
Corrosion study

Test material	Hypochlorous water		Tap water
	Space chlorine concentration 0.02 ppm	Space chlorine concentration 0.5 ppm	
SUS304	 Appearance change: None	 Appearance change: None	 Appearance change: Slight
iron	 Appearance change: Yes	 Appearance change: Yes	 Appearance change: Significant
electronic substrate component	 Appearance change: None	 Appearance change: None	 Appearance change: Slight

Study Facility : JFE Techno-Research Corporation
Test Method : Accelerated test by doverting JIS C 60068-2-52

CLFine™ is adjusted to an effective chlorine concentration of 40 ppm and can be used without dilution. Also, the pH was adjusted to slightly acidic, and the effects of metal corrosion and misting on the living body were also confirmed. Regarding the concentration for use, we propose it according to the customer's environment, referring to the standard of chlorine control concentration (0.5 ppm) of the Industrial Safety and Health Act.

Effectiveness of reduction and disinfection of bacteria/virus by hypochlorous water



Acidic electrolyzed water (hypochlorous water) has a higher ratio of hypochlorous acid (HOCl), which is a bactericidal factor than sodium hypochlorite, so it shows high activity at low concentrations. CLFine™ is an ionless™ (hypochlorous water) with a high hypochlorous acid (HOCl) presence rate adjusted to pH 5.0 to 6.5.

NIPRO CORPORATION (Headquarters)

3-9-3, Honjo-Nishi, Kita-ku, Osaka,
531-8510, Japan
Tel: +81 6 6372 2331 Fax: +81 6 6371 7422
<https://www.nipro.com.jp/en/>

NIPRO ASIA PTE LTD

6 Temasek Boulevard
#31-01/02 Suntec Tower Four
Singapore 038986
Tel: +65 6588 2281 Fax: +65 6588 2481
Email: niproasia@nipro.com.sg
<http://www.niproasia.com.sg/>

NIPRO MALAYSIA SDN. BHD

B-3-2 The Ascent Paradigm,
No.1 Jalan SS7/26A, Kelana Jaya,
47301 Petaling Jaya, Selangor, Malaysia
Tel: +603 7622 1190/1191/1192
Fax: +603 7622 180
Email: office@nipro.com.my

NIPRO JMI MEDICAL LTD

Unique Heights, Level 11,
117, Kazi Nazrul Islam Avenue, Ramna,
Dhaka-1217, Bangladesh
Tel: +880 2 55138723 Fax: +880 2 55138725
Email: info@jmigroup-bd.com

NIPRO AUSTRALIA PTY LTD

Suite 2. 02, 657 Pacific Highway,
St. Leonards, NSW 2065, Australia
Tel: +61 2 9437 9000 Fax: + 61 2 9437 0860
Email: support@niproaustralia.com.au
<http://www.niproaustralia.com.au/>

NIPRO MEDICAL PVT LTD

24-CCA, DHA Phase 8, (Ex Park View),
Lahore-54792, Pakistan
Tel: +92 4237175802/4237175803 Fax: +92
4237175804
Email: info@nipromedical.com.pk

NIPRO SALES (THAILAND) CO., LTD.

89/170 Nipro Building, Viphavadee-Rangsit Road,
Talad-Bangkhen, Laksi, Bangkok, THAILAND 10210
Tel : +66 2551 2000 Fax : +66 2551 2006
Email : sales@niprosales.com

NIPRO SALES VIETNAM COMPANY LIMITED

Floor 15, Unit 15.06 & 15.07, Viettel Complex Build-
ing 285 Cach Mang Thang 8, Ward 12, District 10,
Ho Chi Minh city, Vietnam
Tel : +84 908 260 405
Email : nhuy@niprosales.com

NIPRO SALES (THAILAND) CO., LTD. - MYANMAR REPRESENTATIVE OFFICE

No. E 302, Manawhary Housing, Baho Road, Ahlone
Township, Yangon, Myanmar
Tel : +66 2551 2000 Fax : +66 2551 2006
Email : win@niprosales.com