クローリン O2 錠(CLO_2 Tabs)-Chlorine Dioxide Generating Tablets
クローリン O2 粉(CLO_2 PWD)-Chlorine Dioxide Generating Powders

クローリン O2(CLO_2 Tabs, 0.5g & PWD. 2g) In Action

- Infection control: bacterial or viral outbreaks such as MRSA or Influenza or CORONA viruses,
- Agriculture: disinfectant, equipment sterilization
- Disaster response: eliminating mould and mildew from floods and damaged areas
- Food processing: surface and utensil sterilization, washing fruit, vegetables and utensils
- Disinfection: drinking water tank cleaning
- Laboratory: equipment sterilization
- Health spas: sterilization of equipment and service areas

CLO2 Powders 2g

What is クローリン O2 (CLO2)?

クローリン O2 is the preferred disinfectant for applications around the world, being safer, more effective, more convenient and cheaper to use than chlorine (bleach) based products.

Based on the powerful action of Chlorine Dioxide (ClO2),クローリン O2 has unrivalled disinfecting power, lower corrosion rates, greater selectivity to target biological contaminants, and significantly fewer environmental side effects. It is a fast-acting, highly convenient, and more accurate alternative to liquid bleach and chlorine tablets and powders.

クローリン O2 delivers all of the power of ClO2 in an easy to use package, and requires no dosing systems or two-part powder mixing to apply. Available in a convenient range of tablets or powders and pre-packed pouches, complicated dilution rates and messy liquid mixing are a thing of the past.

How it Works?

Chlorine Dioxide (ClO2) is chemically dies-similar and acts differently to chlorine. The ClO2 disinfecting molecule produced by クローリン O2 is not sensitive to high pH environments, and has more than 2.6 times the oxidation capacity of chlorine and other commonly used disinfectants.

ClO2 has low oxidation strength, meaning that its biocide power is not wasted on attacking inert organic contamination, which in the case of chlorine leads to the formation of environmentally hazardous chlorinated organic compounds, such as Trihalomethane (THM) and Haloacetic Acids (HAA). ClO2 allows for more accurate application as the biocide is targeted where it is needed most.

クローリン O2 offers the ideal balance of disinfection strength and selectivity, and is effective against the widest range of bacteria, fungi and spores, in the most challenging environments.

Oxidation Strength (Corrosion)		Oxidation Capacity (Disinfection Power)	
Ozone	2.07	○○	Ozone
Hydrogen Peroxide	1.78	○○	Hydrogen Peroxide
Hypochlorous Acid	1.49	○○	Hypochlorous Acid(chlorine bleach)
Hypobromous Acid	1.33	○○	Hypobromous Acid(bromine)
Chlorine Dioxide	0.95	○○○○○	Chlorine Dioxide-クローリン O2

How to make chlorine dioxide water with クローリン O2　0.5g Tab. And 2g PWD.

It is very easy to make pure chlorine dioxide water using "**クローリン O2**". Put one tablet or one pouch in the prepared container (for example, a PET bottle containing 500 ml of purified water), close the lid tightly, wait for 3-7 minutes, and when **クローリン O2** is completely dissolved, clear pale yellow-green dilution water is formed. This is a chlorine dioxide water. Ｂ

Both Chlorine O2 0.5g tablet and 2g powders has 60ppm / 500ml effective chlorine dioxide (see dilution examples below).

When diluting, use purified water as the dilution water to obtain the best chlorine dioxide water. When using tap water, we recommend removing the decaling (cooling the boiling water).

Using クローリン O2 CLO2 Tab. 0.5g & CLO2 PWD. 2g			
500ml of water	60ppm	10 liters of water	3ppm
1 liter of water	30ppm	20 liters of water	1.5ppm
2 liters of water	15ppm	50 liters of water	0.68ppm
5 liters of water	6ppm	100 liters of water	0.34ppm

Preservation" of chlorine dioxide water and "temporal change" of effective chlorine dioxide concentration

● If you need to "save" chlorine dioxide water, put it in a closed container and store it in a cool, dark place such as a refrigerator. "Chlorine dioxide" itself is a "gas" at room temperature, but has good solubility in water and dissolves in water easily, but is not suitable for long-term storage because it is affected by high temperatures and light. It is economical to make the amount to be used up.

● Effective chlorine dioxide by "**クローリン O2**" dissolved in water is susceptible to ultraviolet rays (sunlight etc.), causing "aging" and oxidative activity value gradually decreases, so use chlorine dioxide water sooner after storage. Refer to the values (ppm) in the table above as a guide for the change over time when stored at room temperature and bright place.

Day 1	Day 2	Day 4	Day 6	Day 8	Day 10	Day 12	Day 16
60ppm	50ppm	45ppm	35ppm	30ppm	25ppm	20ppm	7.5ppm

Note) It is effective for a comparatively long period of time when stored in a closed container and stored in a refrigerator (**2 – 3** months)

Disinfection data of chlorine dioxide

Test Bacterium	Death Concentration (ppm)		Test Bacterium	Death Concentration (ppm)	
	2.5 mins later	15 mins. later		2.5 mins later	15 mins later
E. coli / O157	0.25	—	Staphylococcus aureus	2	—
Salmonella	1	0.1	Pseudomonas aeruginosa	10	1
Vibrio Para.	1	0.1	Cryptosporidium	100	100
Lactobacillus	1	0.1	Cladosporium	10	10
Lactococci	10	1	Blue mold	10	10
Resobus	1	1	Fusarium	10	1
RBisokuramisizovs	10	10	Legionella spp.	—	0.35

Most bacteria are inactivated within 2.5 minutes when the effective chlorine dioxide concentration of 10 ppm or more is provided. Regarding viruses, low concentrations of chlorine dioxide has been verified to be

valid for hepatitis A virus, SARS, bird flu virus, pandemic influenza virus, etc. (eg, effectively at 1 ppm for pandemic influenza virus, corona virus-according to the test results of the Japan Food Analysis Center).

Key Features

●Easy to use. Simply add tablet or powders to required concentration of water

●Powerful Lower dose rates and corrosion

●Works in challenging conditions Not sensitive to high pH environments □

●Reduced environmental hazards No chlorinated organic compounds

●Multi-purpose Proven as effective against bacteria, fungi and spores

Chlorine Dioxide ensures that the biocide is targeted directly on the active proteins found on the bacterial cell surfaces, saving disinfection time and costs. It means considerably lower dose rates are required, further improving safety and ease of use, whilst minimizing environmental impact. "クローリン O2" is a reliable disinfectant with proven performance

Lower Costs

●No up-front investment in dosing equipment ●Less wastage ● make up disinfectant on demand

● Minimal transportation costs

More Effective

● Fast acting disinfection saves time●2.6 times more powerful than chlorine●Effective against a broad spectrum of pathogens

Easier to Handle

●Unique formulation●Convenient, ready to use ClO2 ●small and handy packaging●No mixing of powders or liquids and no dust particles●Save space - no need to store different chemicals on site

Official Certification for Safety of ClO2

Institutions	Certification Details
JECFA(United Nations Special Committee on Additives)	ADI (Human Body Acceptable Standard) A-Class Cert.
FDA(U.S. Food and Drug Administration)	Food Additives, Medical Disinfection, Medical Equipment Disinfection Use Permission
EPA(U.S. Environmental Protection Agency)	Approved for drinking water, industrial wastewater treatment, and environmental purification
	Permission to use food and meat disinfection
NASA(U.S. Aerospace Agency)	Used for complete sterilization of the Space Shuttle and space foods
HACCP (U.S. Food Poisoning Prevention Program)	Officially adopted for meat disinfection with high risk of food poisoning
Ministry of Health, Labor and Welfare, Ministry of International Trade and Industry (Japan)	Oxidation and disinfection of drinking water, bleaching of flour, pool, public bath water disinfection, Permitted to use for general antibacterial and disinfection.

SDS is available on request.

Both the products are manufactured in Japan.

Packaging: For local distribution: 0.5g x 10/BOX, 2g x 10/BOX

For outside Japan: In bulk

Distributed worldwide by:

Technicon International, Inc. (Tokyo) Tel.81-03-5834-1788 Fax.81-3-5834-1789 email: info@technicon.jp