What is Stabilized Chlorine Dioxide?

“Stabilized chlorine dioxide” is not pure ClO₂. By mixing a buffer with a sodium chlorite solution, many companies produce an aerochlorous chlorine dioxide solution and call it chlorine dioxide. Stabilized chlorine dioxide is actually a solution of sodium chlorite, a primary ingredient in several mouthwashes and toothpastes.

Chlorine dioxide is a highly reactive molecule. It is a free radical and cannot be stabilized as a gas or in solution or gel. The compound called “stabilized chlorine dioxide” by some manufacturers is in fact, sodium chlorite, although the phrase is too often used as synonymous with chlorine dioxide. The “stabilized” term attempts to describe a formulation which has the same or similar chemical properties to the now familiar disinfectant, chlorine dioxide, and its many applications. Chemically this disguise would be similar to calling sodium chloride table salt, “stabilized chlorine.”

Chlorine dioxide is not pure ClO₂. It is a highly versatile, powerful antimicrobial chemical. It kills all germs, viruses, spores, bio-films & odors. It is the planet's most eco-friendly biocide. Oxidation Potential of Stabilized Chlorine Dioxide

<table>
<thead>
<tr>
<th>Oxidation Potential (volts)</th>
<th>Pure Chlorine Dioxide (ClO₂)</th>
<th>Stabilized Chlorine Dioxide (NaOCl)</th>
<th>Hypochlorite (NaOCL)</th>
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</thead>
<tbody>
<tr>
<td>Oxidation Potential</td>
<td>2.07</td>
<td>1.78</td>
<td>1.49</td>
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<td>2e⁻</td>
<td>2e⁻</td>
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Oxidation capacity illustrates strength to attract electrons; higher oxidation capacity signifies greater ability to eliminate more pathogens using less disinfection concentration. Why should I use ClO₂ instead of gluteraldehyde?

While gluteraldehyde is widely used and can be cost effective but there are some significant disadvantages when compared to chlorine dioxide ClO₂.

- Poor efficacy against gram negative bacteria
- Leaves residue on surfaces and foodstuffs
- It has no effect on biofilm
- Not approved for drinking water
- Is inactivated by the presence of dirt and anionic products
- Not measurable in water

Instead of Using Bleach, decontaminate with Pure ClO₂

ClO₂ is more effective at significantly lower concentrations

ClO₂ is registered and recognized as organic by OMRI (Organic Materials Institute)

ClO₂ is gentle on materials, users and the environment

ClO₂ offers SUPERIOR performance ranges & capabilities

ClO₂ is effective in a wide pH range

ClO₂ leaves no residuals, no food tart, perfect for fogging

Why should I use ClO₂ instead of Persoatic Acid?

Paracetic acids are simple to use disinfectants that work in a wide pH range, but there are some significant disadvantages when compared to chlorine dioxide ClO₂.

- Corrosive to equipment
- Dangerous to handle
- It has no effect on biofilm
- High level toxicity
- Not approved for drinking water

What is Chlorine Dioxide ClO₂?

It is a highly versatile, powerful antimicrobial chemical. It kills all germs, viruses, spores, bio-films & odors. It is the planet's most eco-friendly biocide.

- Neutral pH
- No VOC's
- Neutral pH
- No Fragrance's
- Biodegradable
- Non-Masking

Chlorine (Cl) or ‘Stabilized’ chlorine dioxide.

ClO₂ is a (OMRI) Green Material

While bleach is widely used and can be cost effective, there are significant disadvantages compared to ClO₂.

- Bleach is corrosive in all forms, its hard on metals, plastics and users
- Bleach is toxic in all forms because it can produce trihalomethanes (carcinogens), oestrogen mimics, endocrine interceptors & nurotoxins
- Bleach is very pH dependent and losses effectiveness as pH rises
- bleach must be thoroughly rinsed from any surface. It can’t be fogged
- Bleach taints and changes the taste of foodstuffs

It is the planet’s most eco-friendly biocide.