

# General ClO<sub>2</sub> Information & Use Benefits



<p><b>KennelSol<sup>®</sup> APS</b> products produce ClO<sub>2</sub> gas. When used, the gas widely penetrates facilities and effectively seeks out areas often overlooked by hard surface disinfectants. This is especially important in HVAC systems that control the flow of air in a facility. It is also especially important in hard to reach areas and in areas where porous surfaces, chain link fencing, cracks, crevices and other surfaces are often overlooked in a routine disinfecting regiment.</p>	<p><b>GAS</b></p>
<p>Chlorine dioxide is widely recognized as being a highly effective biocide with superior efficacy against viruses, spore forming bacteria, and fungi, as well as protozoan parasites like giardia and cryptosporidium. It was the principal agent of choice used by the US Government in the decontamination of buildings after the 2001 Anthrax attacks. ClO<sub>2</sub> has also been shown to be an effective agent at combating airborne pathogens at concentrations well below permissible OSHA human exposure levels and is therefore considered by numerous studies to be a useful preventative against various airborne pathogens. In addition, ClO<sub>2</sub> has been shown to have synergistic effects when used in combination with disinfecting agents enhancing the overall effectiveness of sanitation regiments. <i>(We are making no such claims on our labeling)</i></p>	<p><b>ClO<sub>2</sub> AS A BIOCID</b></p>
<p>Biofilms house a variety of pathogens and are hard to penetrate. Not surprisingly it has been found that substantially longer contact times and/or much higher concentrations of biocides are required than generally recognized to reach organisms hidden in these biofilms. Because of its mechanism of action and its affinity for water, studies have shown ClO<sub>2</sub> is particularly effective at removing and controlling biofilms, thus exposing organisms, and making overall disinfection more effective. <i>(We are making no such claims on our labeling)</i></p>	<p><b>ClO<sub>2</sub> AND BIOFILM</b></p>
<p>Unlike Chlorine, ClO<sub>2</sub> does not adversely react with organic compounds and as a result does not produce unwanted carcinogenic chlorinated volatile organic compounds (V.O.C.s) and trihalomines. In fact, instead of combining with the aromatic rings of organic compounds, ClO<sub>2</sub> actually breaks these rings apart reducing levels of chlorinated organics. This makes ClO<sub>2</sub> use environmentally sparing! Also, because ClO<sub>2</sub> does not react or combine with organic compounds, much more of it remains available to do its job. <b>KennelSol<sup>®</sup> APS</b> products are biodegradable, decomposing in sunlight and heat into nothing more than salt.</p>	<p><b>ENVIRONMENTALLY SPARING</b></p>
<p><b>Because</b> ClO<sub>2</sub> has a high affinity for moisture it seeks out and penetrates areas where viruses, bacteria, and molds congregate. This is especially important in HVAC systems that control the flow of air in animal care facilities.</p>	<p><b>HVAC SYSTEMS</b></p>
<p>Because chlorine dioxide has been shown to be an effective agent at combating airborne pathogens it makes it an ideal consideration for use in isolation wards where airborne pathogen disease transmission is a concern. <i>(We are making no such efficacy statements and or claims on our labeling)</i></p>	<p><b>ISOLATION ROOMS</b></p>
<p>Because ClO<sub>2</sub> breaks down the aromatic rings of various organic compounds it makes it a superior odor eliminator by destroying odors at their source. It is effective on all animal associated odors like feces, urine, and vomit, as well on other unwanted odors like mold, mildew, skunk, and even smoke.</p>	<p><b>ODOR ELIMINATION</b></p>
<p>ClO<sub>2</sub> is less corrosive than chlorine and almost negligible at use concentrations, and has a neutral pH.</p>	<p><b>FACILITY SPARING</b></p>



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