

Micro-Clean Website

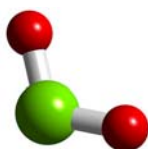
For more information, please email us or call 800-523-9852 PLEASE USE REFERENCE # 0101334

Did you know...?

- Chlorine Dioxide (CD) successfully decontaminated the Brentwood Post Office in Washington, D.C. after an anthrax attack?
- CD has other uses? They include:
 - ★ Washing fruit and vegetables
 - ★ Disinfecting flume water
 - ★ Disinfecting meat and poultry
 - ★ Disinfecting food processing equipment
 - ★ Sanitizing water
 - ★ Controlling odors
 - ★ Treating medical wastes
 - ★ Treating municipal water
- The Environmental Protection Agency (EPA) recommends Chlorine Dioxide? Visit their webpage for more information.

Leading the Way for Decontamination

Four years ago, we sought to improve our decontamination methodology. Formaldehyde gas had been the standard chemical of choice for space decontaminations of devices (such as BSC's and incubators) and also of greater volumes (such as chill rooms, laboratories, and manufacturing suites). Customer concern stemmed from growing evidence that formaldehyde is a human carcinogen. A further concern for our customers *and* Micro-Clean is that using formaldehyde gas, followed by chemical neutralization with ammonia gas, virtually always leaves a solid residue which continues to off-gas formaldehyde. H. Luftman and M.Regits of Micro-Clean investigated all alternative chemicals for this application and came to the conclusion that **chlorine dioxide gas** was the alternative of choice for the industry.



Chlorine dioxide (CD) is a green-colored gas, generated at the time of a decontamination event. Being a potent sporicidal **gas**, CD penetrates and decontaminates all parts of a targeted volume with the same ease experienced with the traditional formaldehyde procedure. However, CD is

not a carcinogen, and better yet, leaves behind no residue or odor. An additional gain is that the kill-rate at typical use concentrations is significantly faster than that of formaldehyde. Overall, the process time is significantly less when you take these factors into account (including the time saved by alleviating the need for cleaning a residue). For example, the total cycle time for decontamination of a BSC, which is typically performed overnight with formaldehyde, is **reduced from at least 12 hours to less than 3½ hours.**



Micro-Clean has developed its portable **Mini-CD-System (MCS)** for use in decontaminating devices. Built into the MCS is a gas-scrubbing unit, allowing our trained technicians to safely remove CD from the target device after decontamination, requiring no external venting or chemical neutralization process. The MCS is currently used by Micro-Clean for every incubator decontamination, as residuals make formaldehyde particularly inappropriate. Several of our

clients also request CD routinely for their BSC's.



For large volume decontaminations, Micro-Clean uses a CD process developed by ClorDiSys Solutions, Inc. CD is now used in more than 80% of our large volume work, which has encompassed spaces from **1000 to over 150,000 ft³**. Micro-Clean has developed a self-contained gas scrubbing system that we use in room-sized work. For larger area work, CD is often directly vented as it breaks down relatively quickly in the ambient and provides no environmental risks. Although we validate all large volume decontaminations with biological indicators after the fact, the CD concentration within the targeted space is quantitatively monitored in real time ensuring that appropriate decontamination criteria are met.

Many believe that within 10 years the entire industry will see CD gas as the decontamination chemistry of choice for large device and space decontamination. Micro-Clean will have just gotten there first.