The Advantages of Chlorine Dioxide vs. Bleach

Bleach	Chlorine Dioxide
Does not remove biofilm	Removes biofilm
Produces unwanted by-products including carcinogens	Does not form chlorinated by-products or THMs
Is corrosive and unpleasant to handle	Is much less corrosive. Does not hydrolyse to form an acid
Already banned in certain parts of Europe and US	Is rapidly replacing chlorine bleach in many of these areas
Is pH dependent and very ineffective above pH7	Is not pH dependent (<pH11)
Is ineffective against complex organisms (e.g. cysts & protozoa)	A very broad spectrum kill*
Limited oxidative effect against various chemical contaminants. Forms chlorinated phenols	Destroys phenols (without forming chlorinated phenols) specific destruction of Hydrogen Sulphides. Destruction of a wide range of chemical contaminants#
Neutralization required before dumping into the foul drain	Because no unwanted by-products are formed, and will have a lower residual after use, no neutralization normally required
Cannot be used at temperatures above 40 degrees Celsius due to the release of chlorine gas	Effective at higher temperatures - does not disassociate as rapidly as chlorine
Treatment time requires Minutes to Hours	Treatment time requires Seconds to Minutes
Effective Concentrations are 5,000 - 10,000 ppm	Effective Concentrations are 50 - 1,000 ppm
Increased disinfection time and more service work required to combat high bug counts	Cost savings in labor and use efficiency outweighs the additional chemical costs

* Includes aerobic, non-aerobic, gram positive & gram negative bacteria, spores, viruses, fungi, cysts and protozoa

\# Includes iron, manganese and other metallics, phenols, trichlorophenols, hydrogen sulphides and sulphides

Click for more info about chlorine dioxide and chlorine bleach misconceptions.

(Reference: Dr. Henry Luftman and Scotsman's Group)