

SafeOx™ “Simplicity”

... safely generating chlorine dioxide

Chlorine dioxide is a highly potent, fast acting bactericide and virucide at concentrations as low as 0.1 ppm. It does not form toxic by-products, is effective over a wide pH range in both hard and soft water; and does not react with most other water treatment chemicals and so leaves no residual toxicity. It will eliminate both planktonic and sessile bacteria, disinfect surfaces and rapidly destroy problematic biofilm. With minimal contact time, it is highly effective against many pathogenic organisms including bacterial spores, Legionella, Tuberculosis, MRSA, VRE, Listeria, Salmonella, amoebal cysts, Giardia cysts, E. coli, Cryptosporidium and more. Importantly, chlorine dioxide also destroys biofilm so bacterial re-growth is significantly impeded.

We believe that our innovative SafeOx “Simplicity” technology is currently the safest and most effective way of delivering chlorine dioxide at the point-of-use for applications in the facilities management and building services sectors. from 0-30 g/h to 0-100 g/h of high purity chlorine dioxide. Additional SafeOx “Smart” generating units are also available to suit larger volume applications, up to 2,000 g/h.



Our SafeOx “Simplicity” chlorine dioxide system is extremely effective at penetrating biofilms and controlling amoebae, both of which can encourage the growth of Legionella bacteria.

SafeOx “Simplicity” also has full approval from the British Drinking Water Inspectorate (DWI) for use in potable water.

With chlorine dioxide, it is the oxygen which reacts, not the chlorine. With SafeOx “Simplicity” there are no unpleasant by-products; the chlorine component ultimately ends up as harmless, soluble chloride ions at very low levels.

“the safest, most controllable way of producing chlorine dioxide...”

SafeOx “Simplicity” is Safe & Efficient

Accepta’s SafeOx “Simplicity” chlorine dioxide system offers a number of significant benefits including:

- Instant high yield - no holding tanks, waiting time or hazardous acids.
- Can be accurately dosed, monitored and controlled.
- No chlorinated by-products to cause taste or health problems.
- Unaffected by water chemistry (e.g. pH).

- Numerous safety features - double walled dosing tubes, auto lockout pumps, low volume mixing chamber.
- Extremely effective against biofilms and amoebae which are major risk factors in legionella outbreaks.

The Safest, Most Controllable way of Producing Chlorine Dioxide

The SafeOx “Simplicity” dosing system has a number of unique design features which make it the safest, most controllable way of producing chlorine dioxide:

- **Instantaneous Activation** - SafeOx “Simplicity” activates instantaneously, there is no need for mixing and dilution tanks, or reaction vessels containing large volumes of strong chlorine dioxide solutions.
- **Robust System** - Activation takes place in a reaction manifold which is integral to the system pipework, so there are no fragile injection tubes containing concentrated chlorine dioxide.
- **No Hazards** - Chlorine dioxide is only ever produced in solution, and only a few millilitres of concentrated solution are held within the manifold, so there is no hazard.
- **Eliminate Under or Overdosing** - The dosing pumps are controlled automatically and are initiated by an impulsing water meter to prevent under or overdosing.
- **Integral Alarms** - The system incorporates alarms to indicate if a pump is not pumping and if a chemical drum is empty.

As a further precaution against the inadvertent mixing of the chemicals, the injection tubing is double walled and the chemical drums are placed inside individual bunds with lids.

Biofilms Increase Risk Levels

Biofilms can cause health problems:

- Legionella favour an environment where biofilms exist, where they can be ingested by amoebae which "graze" on biofilms.
- Inside amoebae, legionella can grow in a low hazard environment and become more virulent.
- Infested amoebae can be carried in water droplets and inhaled deep into the human lung, which can lead directly to Legionnaires' disease.



Biofilms can cause engineering problems:

- Biofilms impair heat transfer owing to their very low thermal conductivity.
- They increase frictional drag in pipework which increases pumping costs.
- They encourage corrosion by providing an environment for problem microbes like anaerobic sulphate reducing bacteria.

Standard SafeOx “Simplicity” Dosing System

Accepta can offer a system to meet your requirements. Our experienced chlorine dioxide specialists will carry out a full, no obligation, site survey and discuss the best options available for you.

Accepta can carry out the whole turnkey project from start to finish or work with you as a partner.

Our high performance chemicals can be supplied in 25Kg drums or delivered using our drumless service eliminating the need for the manual handling of chemicals.

Additional Information

For additional information contact Prowater:

Prowater Limited
Unit 6 Midland Court
Midland Way
Barlborough
Derbyshire
S43 4UL

T: 0845 260 3310

F: 0845 260 3320

enquiries@prowater.co.uk

www.prowater.co.uk

