

PureChlor Disinfection and Sterilisation Solutions

The PureChlor Chlorine Dioxide Solutions from Envirogen are used worldwide ensuring sterility across a wide range of water applications.

Chlorine Dioxide is one of the most effective oxidative biocides on the market due to its unique combination of properties. The PureChlor Solution is an efficient and safe way of generating Chlorine Dioxide

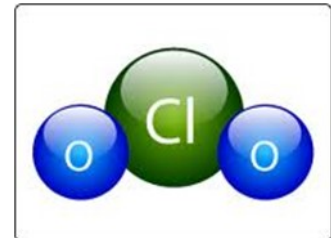


Technologies

The PureChlor Chlorine Dioxide plant is a safe, and efficient way of producing Chlorine Dioxide for multiple applications across a plant.

Why is Chlorine Dioxide so good:

- **Potency** – extremely effective at low dosages
- **Rapid Kill** – disinfects and sanitises in seconds
- **Not pH sensitive** – extremely effective biocide between pH 4 and 10
- **Effective biocide against biofilms**
- **Potency against legionella**
- **High Selectivity**
- **No Taste, odour or taint problems**



What is Chlorine Dioxide (ClO₂)

- A powerful biocide
- Consists of 1 atom of Chlorine, 2 of Oxygen

Chlorine dioxide is generated using two stable reagents. Activation of this reagent is achieved utilising an inline generating system. The chemical reagents used for the generation of CHLORINE DIOXIDE on the PURECHLOR systems are:

PUREGEN-S – chlorite based activation salt supplied in liquid form.

PUREGEN-A – hydrochloric acid based solution.

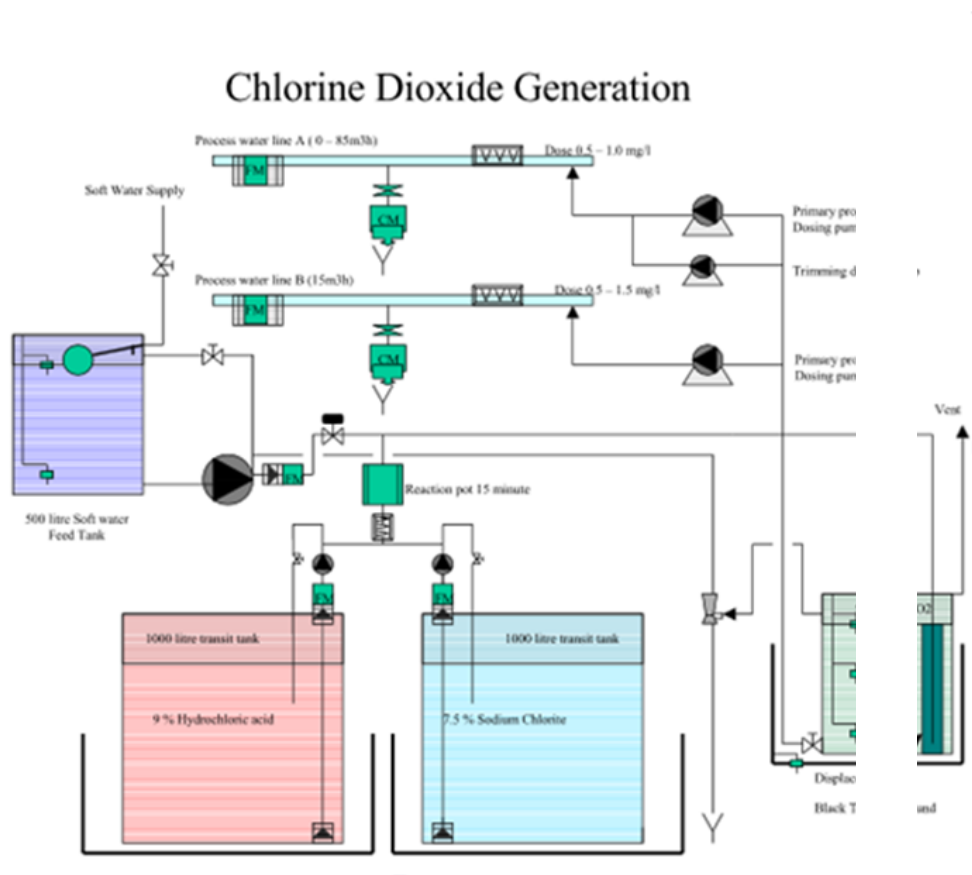
Formula for conversion of Puregen-A and Puregen-S to ClO₂:



How does Chlorine Dioxide (ClO₂) Work?

- Oxidation reaction- 'Shot Gun'
- Attacks cell wall material
- Does not poison, it destroys microbial cells
- Unstable and usage at low ppm





Benefits

- Multi-point of use across a range of applications from one generating system
- Fast acting and effective killer unaffected by pH range
- Low chemical usage ensuring a safer environment
- Zero harmful chlorinated by-products
- Single reagent storage area
- Easy future expansion, a single generator with multiple point of use
- Application specific sterilant residual
- Central PLC control system with multiple safety interlocks
 - High speed counters for chemical injection
 - Carrier water flow monitoring
 - Residual monitored using specific Chlorine dioxide monitoring equipment

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