



# PureChlor

System, Service, Reagents & BOOM

## Chlorine Dioxide

### What is Chlorine Dioxide (ClO<sub>2</sub>)?

- A powerful biocide
- Consists of 1 atom of Chlorine, 2 of Oxygen
- Is a yellow / green gas at R.T.P.
- Is different to Chlorine!

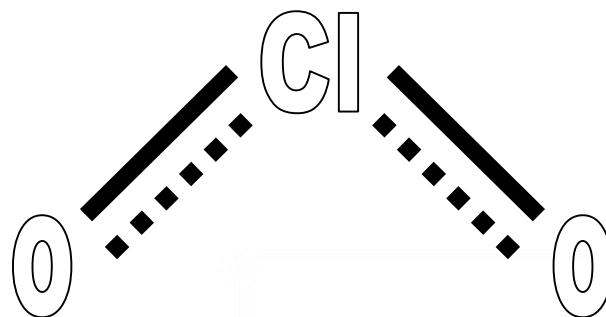


## Chlorine Dioxide

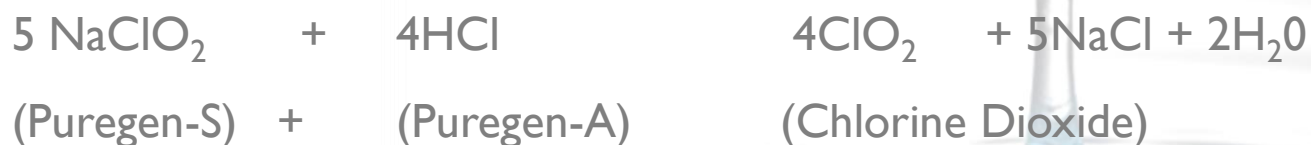
### Why use $\text{ClO}_2$ ?

- 3 x more powerful than Chlorine
- Is more efficient than Chlorine.
- Is more environmentally friendly than Chlorine.
- Does not form Chlorinated organics.
- Active over a broad spectrum of micro-organisms.
- Active at a wide range of pH levels pH 4-11

## Chlorine Dioxide

ClO<sub>2</sub> Chemistry

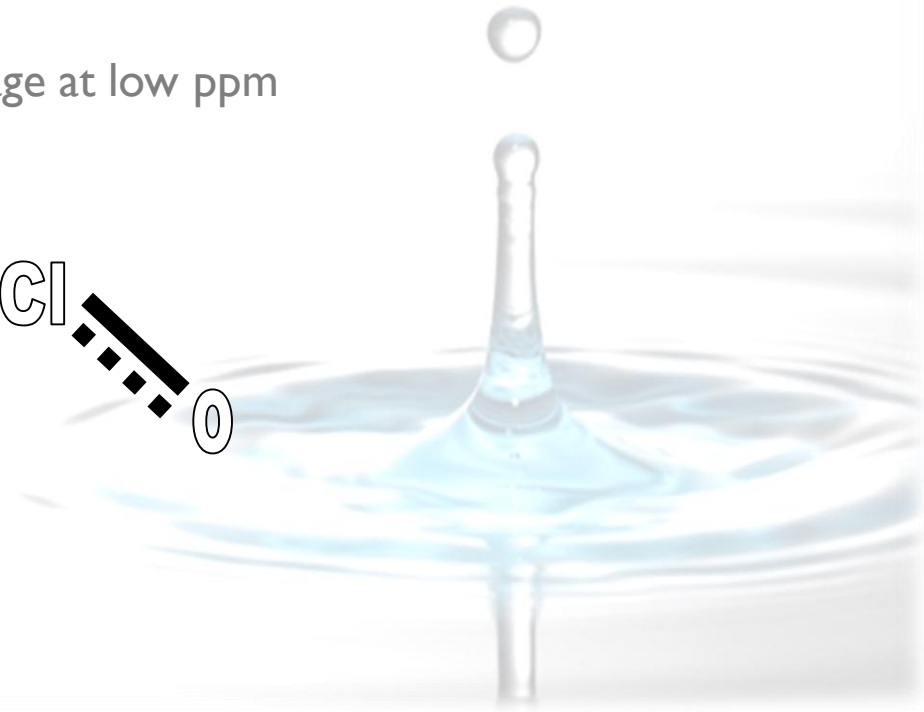
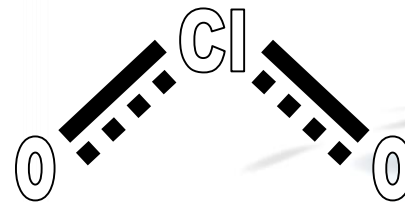
**Formula for conversion of Puregen-A and Puregen-S to ClO<sub>2</sub>:**



# Chlorine Dioxide

## How does Chlorine Dioxide (ClO<sub>2</sub>) Work?

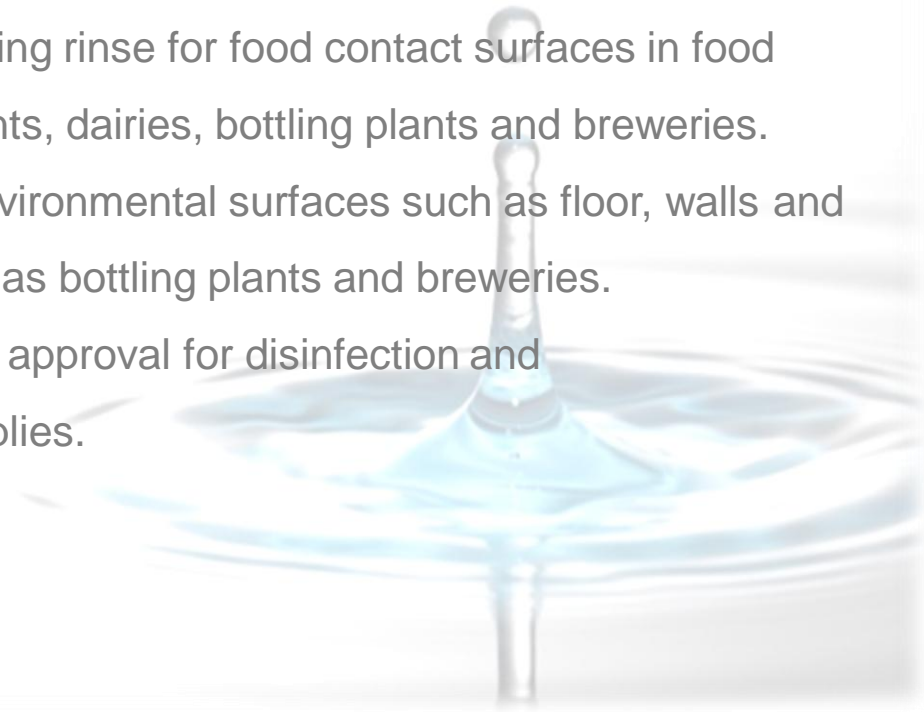
- Oxidation reaction- 'Shot Gun!'
- Attacks cell wall material
- Does not poison, it destroys microbial cells
- Unstable and usage at low ppm



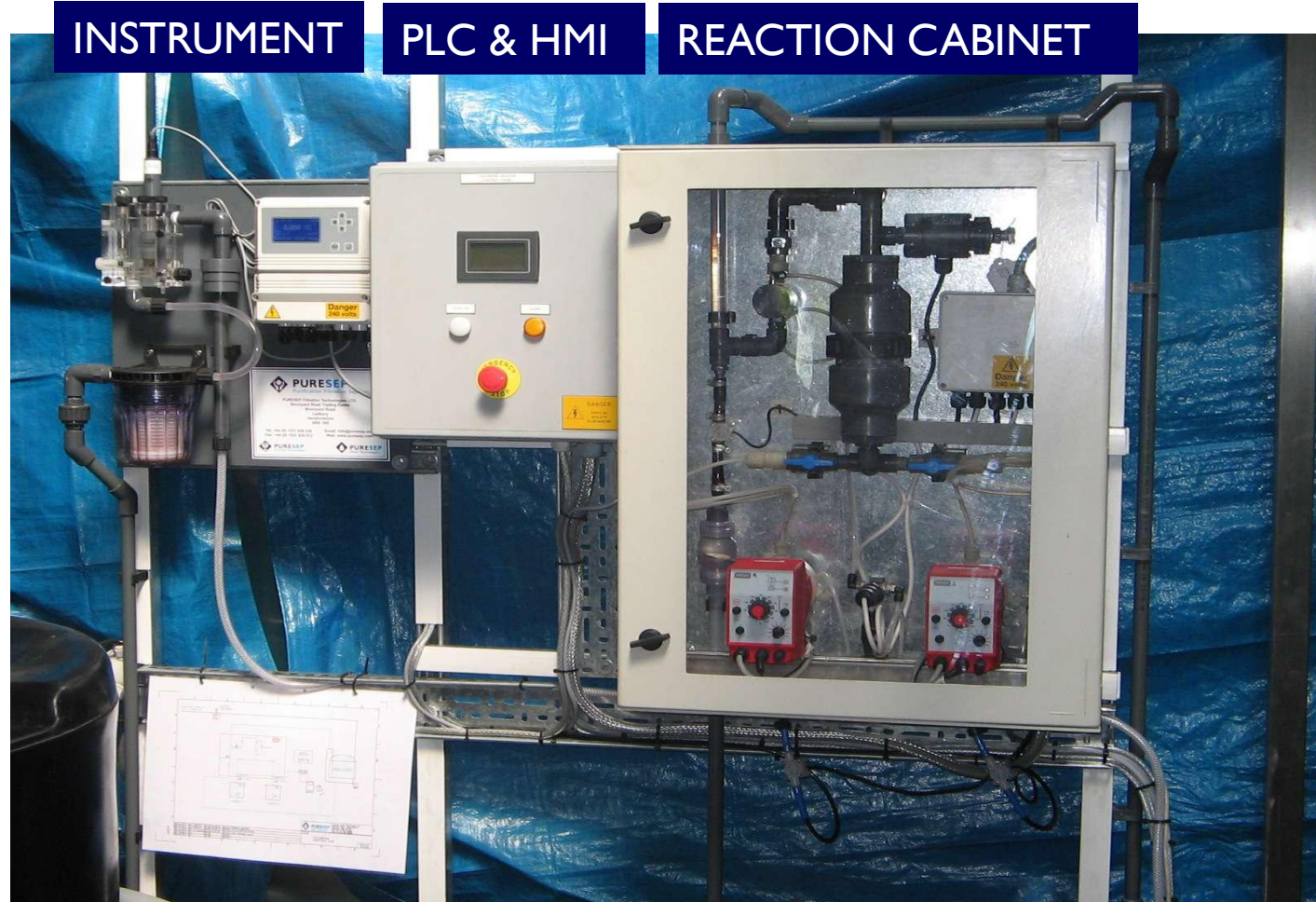
## Approvals

### Industry approvals for the use of PURECHLOR chlorine dioxide treatment:

- Soil Association approval for use for organic drink packaging sanitisation.
- Brewing, Food & Beverage institute (BFBI) approval for packaging sanitisation, product dilution water disinfection, mobile & fixed tank CIP.
- Environmental Protection Agency (EPA) bactericidal and fungicidal approval for hard non-porous surfaces in hospitals, laboratories and medical environments.
- EPA approval for a terminal sanitising rinse for food contact surfaces in food processing plants, and in restaurants, dairies, bottling plants and breweries.
- EPA approval for disinfectant of environmental surfaces such as floor, walls and ceilings in processing plants, such as bottling plants and breweries.
- Drinking Water Inspectorate (DWI) approval for disinfection and sanitisation of domestic water supplies.



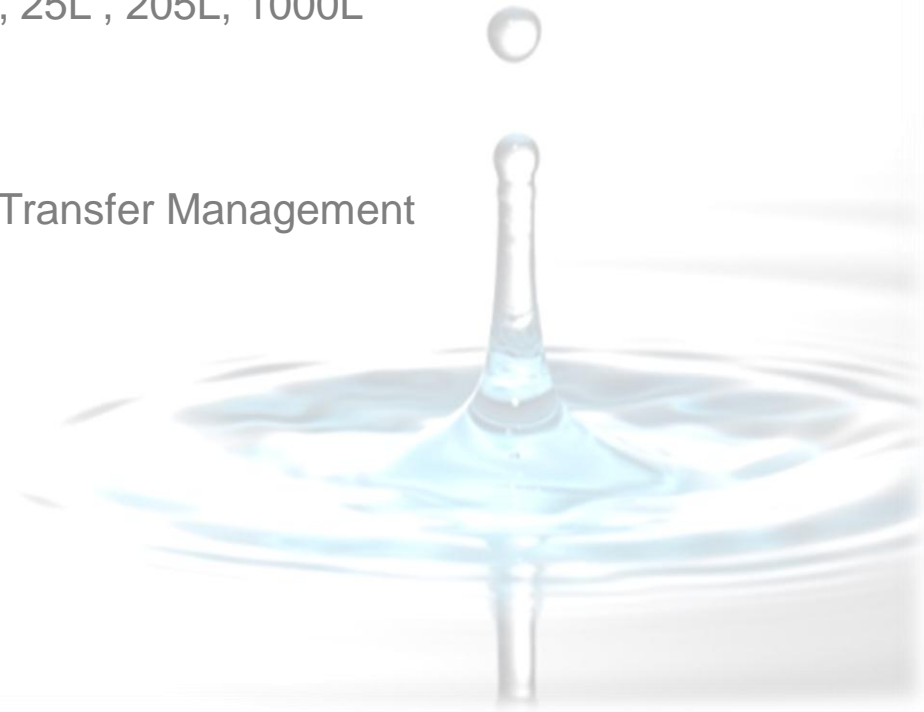
# System Overview



## Chemical Supply



- **Manufacture & Distribution**
- Puregen - A
- Puregen – S
- Ready made Chlorine dioxide
- Pack size 300ml, 25L , 205L, 1000L
- MSDS
- Supply / Stock / Transfer Management





# PureChlor Range – Multiple POU



# PureChlor Range – 1 X POU



# PureChlor – Bespoke Water Recovery



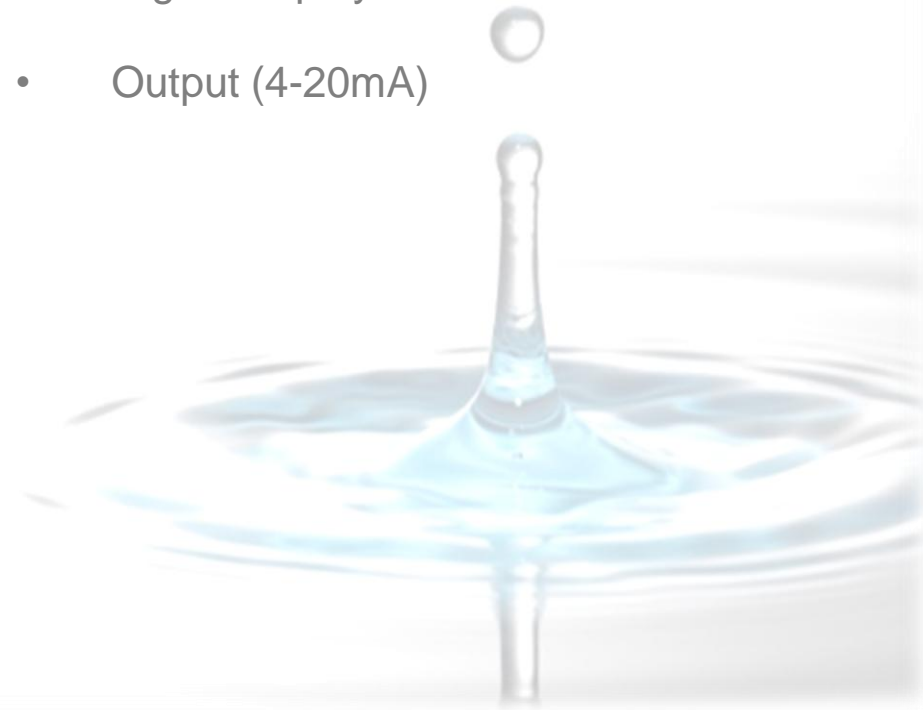
# PureChlor Range - Compact



## Process Validation / Monitoring

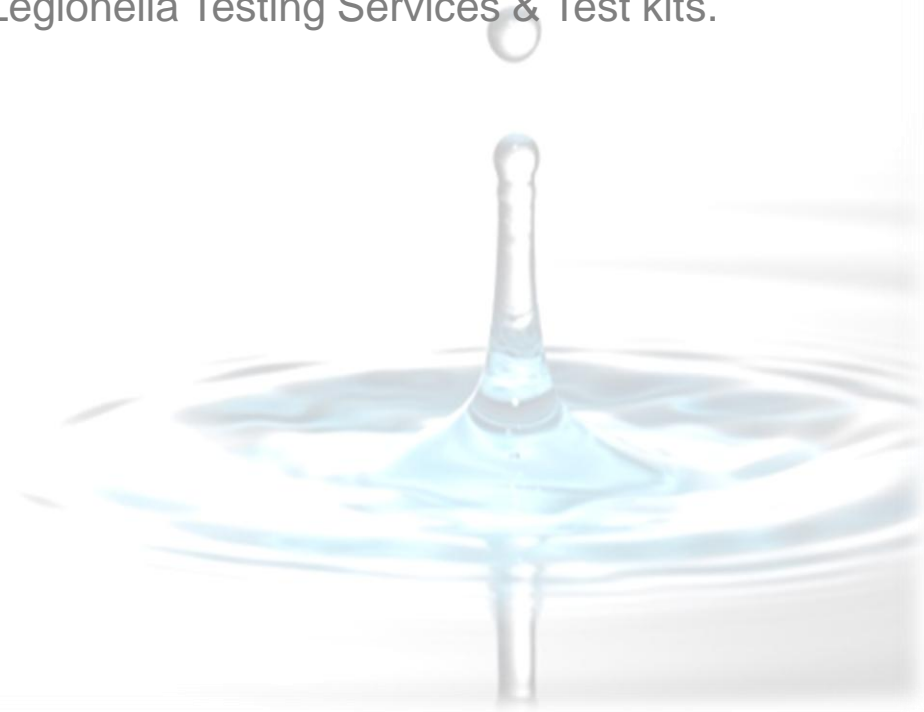


- Specific Chlorine Dioxide ( $\text{ClO}_2$ ) probe
- Sample water filter- oxidised material
- Flow cell & regulator- 1 bar max
- Digital display
- Output (4-20mA)

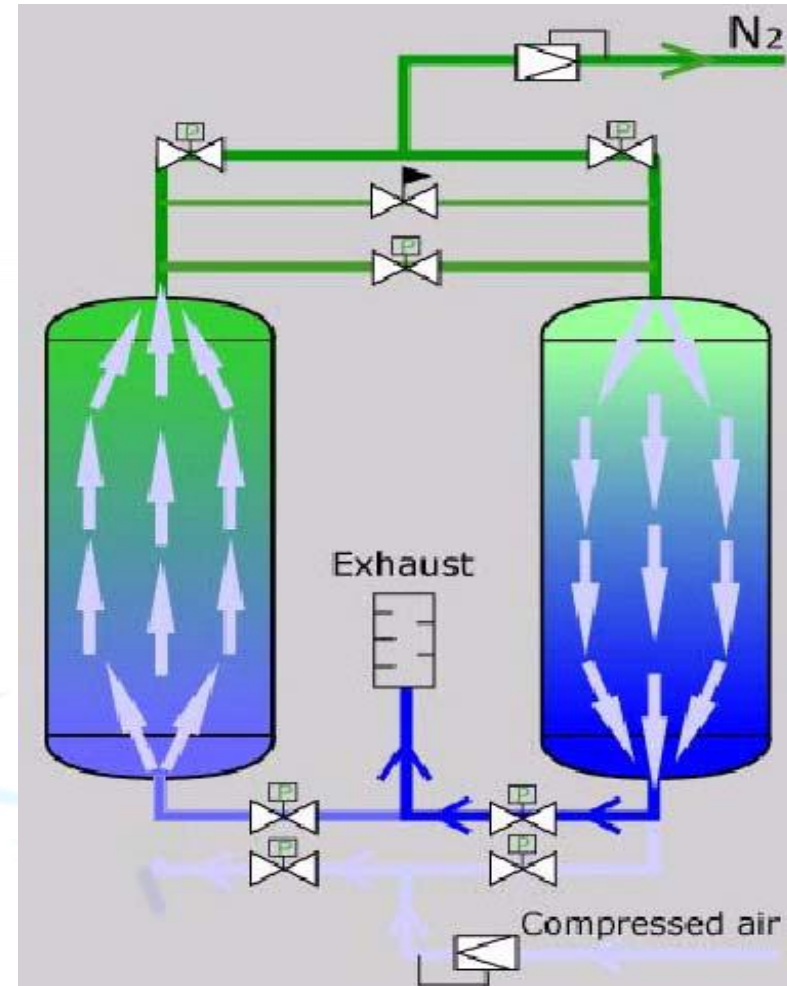
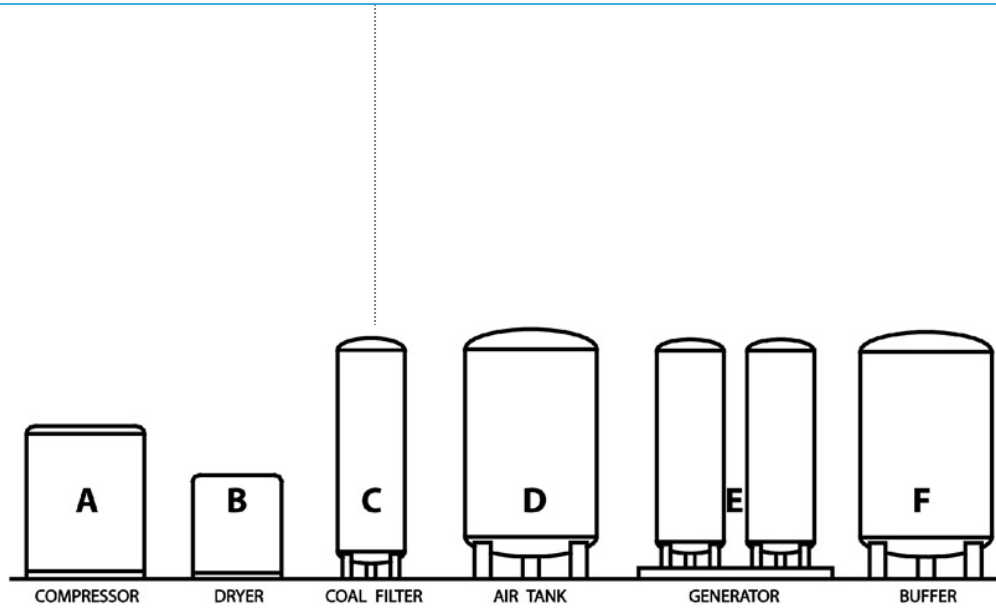


## Discussion / Questions

- Reagent supply contracts for our systems & competitors
- Competition- Tristel, Prominent, Clearwater, Alldos & others
- H & S - client views 'hands off'
- Price pointers: Systems & Reagents
- Add ons- Carbon filters, Legionella Testing Services & Test kits.



# Gas Generation Oxygen & Nitrogen



# Mobile Solutions

