

### Engineering for Health & Hygiene™



# The solution: Ecas4-Anolyte

Our patented technology produces a highly effective, genuinely pH neutral, electro-chemically active, metastable disinfectant without the use of toxic chemicals.

Ecas4-Anolyte is a water surface disinfectant suitable for a wide range of applications.





# Ecas4 nebulisation technology

Ecas4-Anolyte is an aqueous solution with a high bactericide and fungicide effect.

#### **Extremely effective in prevention**

- + Safe and easy application
- + Disinfects all equipment surfaces including walls and ceilings
- + Safe to use on all electrical equipment
- + Non corrosive
- + Non toxic

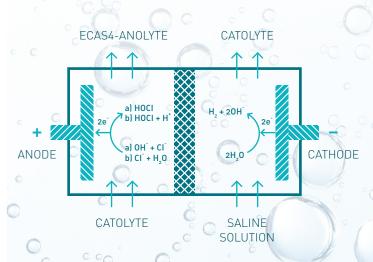
#### Typical Application: room disinfection

- + Disinfect with Ecas4 Nebulisation (Manually or Automatically with Nebulisation device)
- + Time approx. 15 minutes per room.

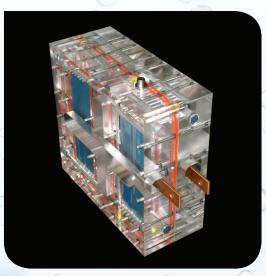
# The Ecas4 technological advantage

- + Worldwide Patented Four Chamber Cell System The Ecas4 apparatus is based on the Membrane Electrolytic Reactor system with four chambers (Patents PCT/IT 2006 000 829 and PCT/EP 2009 065 077). The reactor features allow the typical synthesis of a neutral Anolyte (with a pH close to 7) characterized by an ORP (Oxidation Reduction Potential) of about 850-900 mV, a chloride content less than 0.5% and an active chlorine content of about 350 mg/l.
- + Ecas4-Anolyte is pH neutral and is therefore non-corrosive.
- + Using Ecas4 avoids the need to prepare and store dangerous chemicals.
- + Both 'barrier' & 'deposit' effect.
- + Environmentally friendly and non-toxic.
- + Improvement of COD, BOD and AOX values in wastewater derived by disinfection with Ecas4-Anolyte.
- + Fully complies with European legislation, including DVGW requirement (German Technical and Scientific Association for Gas and Water).

- + Costs savings as thermal-shock treatment of pipes is not required.
- + Labour savings in industrial surface and machinery disinfection.
- + No chemical purchases are required.
- + No special safety equipment or protocols required as Ecas4 is non-toxic.
- + Customised design water treatment systems can be individually designed according to client requirements.
- + Remote control capability once installed within new or existing hot water systems, the Ecas4 water treatment system can be remotely controlled.
- + Water treated remains potable.



Ecas4-Anolyte production is entirely automatised by means of an electrolytic procedure. The Ecas4 apparatus is based on the Membrane Electrolytic Reactor system with four chambers.



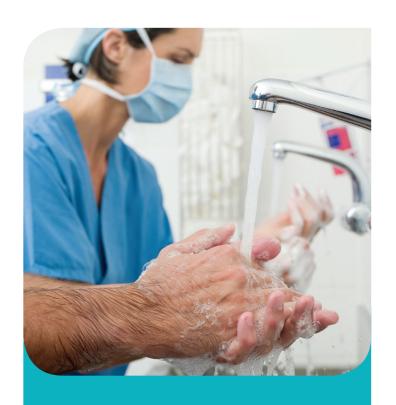
### Ecas4-Anolyte and water purification

Ecas4-Anolyte production is entirely automatised by means of an electrolytic procedure that does not require the use of toxic, harmful or dangerous substances.

The Ecas4-Anolyte solution has a high redox power and is genuinely pH neutral and non-corroding due to our unique patented 4-chamber system.

#### Ecas4-Anolyte solution is:

- + pH neutral
- + 100% effective for 48 hours
- + Non-toxic
- + 100% biodegradable and
- More effective than ozone or chlorination systems



The Ecas4-Anolyte sanitisation system measures and injects a minimal dose of Ecas4-Anolyte disinfecting agent into the water pipes. Suitable for hot, warm and cold water.

Common disinfection methods do not offer long-lasting protection.

#### How Ecas4-Anolyte compares to other purification and disinfection systems

SYSTEM	Barrier Effect	Deposit Effect	Disinfection with No Corrosion	No Halomethane Formation	Biofilm Elimination	Cost Benefits
Thermal Treatment			•	•		
Chlorination			•			
Chloride Dioxide			•	•	••	
Copper + Silver Positive Ions			Not compatible with zinc surfaces	•		
Ozone						
Filtering						
Ultraviolet Rays				•		
Ecas4-Anolyte			•	•		

# Ecas4 applications

### Water purification and surface sanitisation.

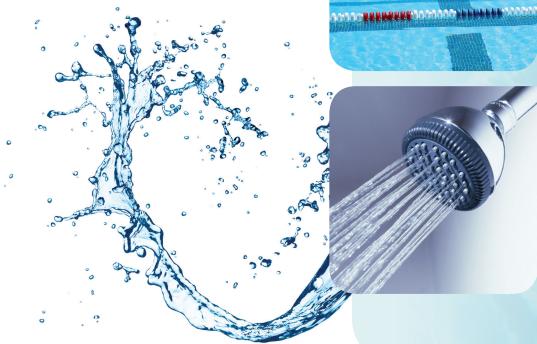
A safe and healthy water supply without pathogens is vital for human survival. Ecas4 technology has a wide range of applications for both domestic and industrial water treatment and surface sanitisation:

- + Hospitals:
  - hot water treatment
  - operating theatre disinfection
  - beds
  - wards
  - wet areas
  - rest rooms
- + Dental clinics
- + Cooling towers
- + Saunas, spas, pools
- + Able to treat cold, warm or hot water systems.









### Ecas4 in action

The Ecas4 systems fully comply with European legislation, including DVGW requirements and are currently installed and in use at a number of facilities in Europe.

#### Hospitals

- + Medical Park Bad Wiessee, Germany
- + Rosenheim Clinic Germany
- + Dresden University Hospital Dresden, Germany
- + National Neurological Institute C.Besta Milano, Italy
- + Private Hospital Villa Igea di Ancona Ancona, Italy
- + S.Andrea Vercelli, Italy
- + Hospital Asti, Italy
- + Hospital Maria Vittoria Torino, Italy
- + Hospital San Camillo Forlanini Roma, Italy
- + Camilliani Napoli, Italy
- Hospital Universitario Donostia –
  San Sebastian, Spain
- + Hospital Basuto Bilbao, Spain.



