





# Your water purification Expert

Pig Farming



# Water Hygiene

### The importance of good water quality

Clean water is essential to healthy chickens. Contaminated water not only leads to diseases, but it can have a significant impact on growth and productivity. Studies show that animals with good quality water grow faster and healthier, reducing the need for antibiotic treatment.

Kersia's approach to offer healthy and clean water to your animals is achieved through a comprehensive water hygiene programme containing 4 necessary steps:

- 1) Undertake water analysis
- 2) Clean pipes and drinkers, both internally and externally
- 3) Disinfect clean tanks and pipes from the inside, use a "shock-disinfection"
- 4) Continuous water treatment

It is essential that no part of the water system is overlooked in the cleaning and disinfection procedure. On-going water treatment with products such as Aquatabs<sup>®</sup> or Aquatabs InLine, a world leader in water disinfection, is essential to ensure microbial levels remain low and to prevent biofilm build up.

Disinfectants are regulatory biocides. They have guarantees of efficiency and protection of human, animals and the environment. Use biocides safely. Before use read the label and product information. Dangerous. Comply with precautions for use.

# WATER HYGIENE





1. Analysis

2. Cleaning

Undertake water analysis to determine micro and scale causing microbial levels.

a) Choose a suitable detergent cleaner and descaler for inside the pipes and tanks.

b) Choose a suitable detergent cleaner for outside the pipes and drinkers.

## Continuous water treatment by Aquatabs<sup>®</sup> and Aquatabs InLine

It is essential that no part of the water system is overlooked in the cleaning and disinfection procedure. On-going water treatment with products such as Aquatabs<sup>®</sup> and Aquatabs InLine, a world leader in water disinfection, is essential to ensure microbial levels remain low and for avoiding the reestablishment of the exopolysaccarides (EPS) matrix which is critical to the function and support of biofilm.



# A 4 STEP PROCESS



- 3. Shock Disinfection
- Use a shock disinfection between two crops to reduce microbial challenges.



4. Continuous Treatment

Choose a suitable water disinfection treatment for avoiding the reestablishment of the exopolysaccarides matrix which is bearing the biofilm and to ensure continuous supply of clean water.

# **Aquatabs**<sup>®</sup> **Disinfectant for Stock Drinking Water**

Effervescent tablets based on NaDCC for disinfecting of stock animal drinking water.

In solution, the precursor NaDCC releases active chlorine through a reservoir system with an optimum pH level (~6) and keeps the water safe by maintaining an equilibrium between active chlorine and free chlorine. As active chlorine is progressively consumed by disinfection, the tablets replenish the consumed active chlorine as needed.

#### Advantages of active chlorine released from NaDCC

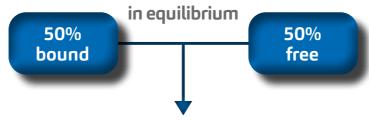
Aquatabs<sup>®</sup> is an effervescent tablet containing 50% NaDCC (NADCC = sodium dichloroisocyanurate)

> NaDCC+2H2O = 2HOCIhypochlorous acid

- » HOCl, hypochlorous acid, has the most effective biocidal action
- Undissociated HOCl is 100 times stronger that the dissociated form (hypochlorite) »

#### Aquatabs<sup>®</sup> = Reserves of active chlorine

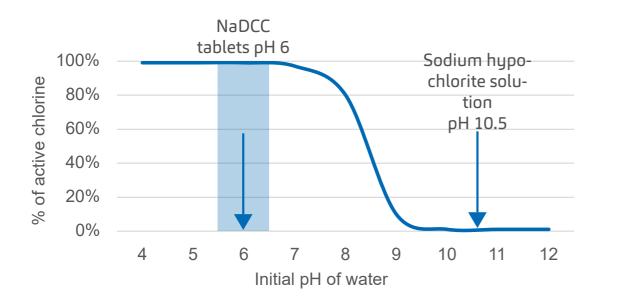
Available chlorine is progressively consumed by disinfectant activity. By maintaining an equilibrium between active chlorine and chlorine reserves, the tablets replenish the consumed active chlorine as needed.



#### Aquatabs<sup>®</sup> = Optimized pH

In solution, NaDCC generates an optimum pH level  $\approx$  6. The level of active chlorine availability in such solutions is greatly superior to that of sodium hypochlorite (alkaline pH).

The slightly acidic solution avoids the reestablishment of the exopolysaccarides matrix (EPS) which is bearing the biofilm when used continuously at low concentrations.



Disinfectants are regulatory biocides. They have guarantees of efficiency and protection of human, animals and the environment. Use biocides safely. Before use read the label and product information. Dangerous. Comply with precautions for use.

#### Aquatabs<sup>®</sup> Efficacy Tests = Tried, Tested, Tusted!

UBA method "Quantitative determination of the efficacy of drinking water disinfectants" to confirm efficacy for PT5: animal drinking water disinfection							
Tested organisms		Test Conditions	Concentra- tion	Contact Time			
Bacteria	E. coli (A3) E. faecium (Teltow 11)	13.5°C	1mg/L available	10 minutes (2 log10 level reduction)			
Bacteriophages	Bacteriophage MS2 Bacteriophage PRD1	Clean Conditions	chlorine	25 minutes (4 log10 level reduction)			



# **ADVANTAGES**

- Simple to use
- Dissolves rapidly and completely
- Maintains healthy water
- Assists in the control of biofilm built up avoids the reestablishment of the exopolysaccarides (EPS) matrix which is critical to the function and support of biofilm Assists in the control of calcium deposits at nipple drinkers and pipes Generates optimum pH-level Optimises performance Contains no heavy metals
- **RECOMMENDED USAGE** Application - Troughs, Water tanks and Dosing pump 1 Aquatabs<sup>®</sup> tablet in 5000 litres of water = 1ppm Active Chlorine.

#### Water Disinfection:

Add one Aquatabs 8.68g tablet to 5000 liters of clear water (1mg/L available chlorine). Leave for 30 minutes before drinking.

#### Water Disinfection using a dosing pump:

N° of Tablets	Stock Volume (litres)	Stock Solution conc. (mg/L Available Chlorine)	Propor- tioner Setting	Dosage (mg/L Available Chlorine)
1	50	100	1.0%	1
10	500	100	1.0%	1
1	0.5	10,000	100ppm	1
60	30	10,000	100ppm	1



Aquatabs®
Aqualaus
17.36 g
8.68 g
5.59 g

# Aquatabs Inline Water Purification System



# Aquatabs<sup>®</sup> InLine

An innovative system for disinfecting water at point of collection with no power required and works on the flow of the water. Water is forced down through a cartridge and around the tablets, which dissolve to mix the required level of chlorine into the water line.

The tablets are slow dissolving and are therefore perfect for continuous water disinfection.

## «Aquatabs InLine, simple, safe, low cost water disinfection system »

# Aquatabs Inline Water Purification System

### **ADVANTAGES**

- Suitable for all water systems; mains, wells and boreholes
- Easy to install, no power required
- Low maintenance and no moving parts
- Assists in the control of biofilm built up avoids the reestablishment of the exopo-lysaccarides (EPS) matrix which is critical to the function and support of biofilm
- Assists in the control of calcium deposits at nipple drinkers and pipes
- Generates optimum pH-level
- Maintains healthy water
- Cost effective and sustainable water solution
- Dosing of integrated water units and systems at POC (point of collection)
- Continuous / automatic dosing on the flow of water at point of entry into a tank or in-line for gravity /open and/or pressurized water systems
- 10 to 30 litres per minute
- Replace cartridge when empty

## **RECOMMENDED USAGE**

Each cartridge treats 360,000 litres @ 0.2-3ppm at 100% water flow. The water pressure should not exceed 5 bar.

## **TRAINING VIDEO**

Scan the QR Code and follow our explanatory training video:









Training video





#### **Instructions for Use**

- Simply add the required number of tablets to the water.
- Wait for 30 minutes.
- Water has been purified and now ready to use.

#### Instructions for Use - Dosing Pump

- Prepare your stock solution of Aquatabs using the dilution chart below. Stock should be made up in a clean container free of contamination.
- Wait 30 minutes before using treated water.
- Avoid dosing 24 hours prior to and 12 hours post vaccine treatments.

TABLET	AQUATABS®	
Dosing Levels	Volume of Waster per Tablet (Litres)	
1 ppm	5,000 l	
2 ppm	2,500 l	
5 ppm	1,000 l	



Dosing Pump regulation	0.1%	0.2%	0.5%	1%
No. of Tablets	10	5	2	1
Litres of Water	10 l	10 l	10 l	10 l

# Aquatabs Inline Water Purification System

#### Instructions for use

#### «Always wear safety goggles, mask and gloves.»

Note: Where a bypass system is in operation, a proportion of water to be treated must pass through the Inline device during use, to ensure complete dosing.

- Turn off the main water supply.
- Cut away the required length of pipe.
- Place a stop valve at each end of the cut mains pipe.
- Using plumbing tape, securely attach a 1.5" female thread to each end of the InLine device housing unit. Note: do not use sealant for this step.
- When installing the InLine device housing unit, ensure the arrows on the top of the unit are pointing in the correct orientation i.e. that the arrows are pointing in the direction of the water flow.
- Keeping the housing in an upright position, connect to the stop valves attached to the mains pipe.
- Unscrew the retaining ring from the InLine housing.
- Remove the cap from the InLine cartridge.



- Guide the cartridge into the InLine Housing.
  - » see InLine leaflet included with the housing unit or scan the QR code and watch the training video. Align the circular grid opening with the water inlet located on the underside of the housing unit whilst applying light upward pressure.
- To ensure the cartridge is inserted correctly, when gently twisted limited movement should be observed. Note: until the retaining ring is secured, ensure the tablet cartridge is held in place by the user.
- Replace the retaining ring and tighten in an anticlockwise direction.
- Turn on the water supply. Flush the InLine system continuously for a minimum of 5 minutes to ensure all components have been fitted correctly. During the flushing step, the water that is passed through the system should be diverted to a container/ drainage and disposed of. After the 5-minute flush, the water is suitable for consumption.

Disinfectants are regulatory biocides. They have guarantees of efficiency and protection of human, animals and the environment. Use biocides safely. Before use read the label and product information. Dangerous. Comply with precautions for use.



For more information please contact us on +33 (0)2 99 16 50 00 or email us at <u>poultryandpigs@kersia-group.com</u>

> 55, Boulevard Jules Verger 35803 DINARD – France

www.kersia-group.com