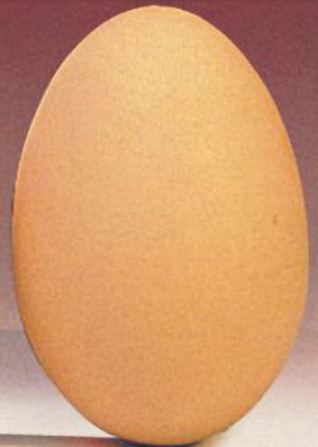




**A  
NOVEL & UNIQUE  
DISINFECTANT**

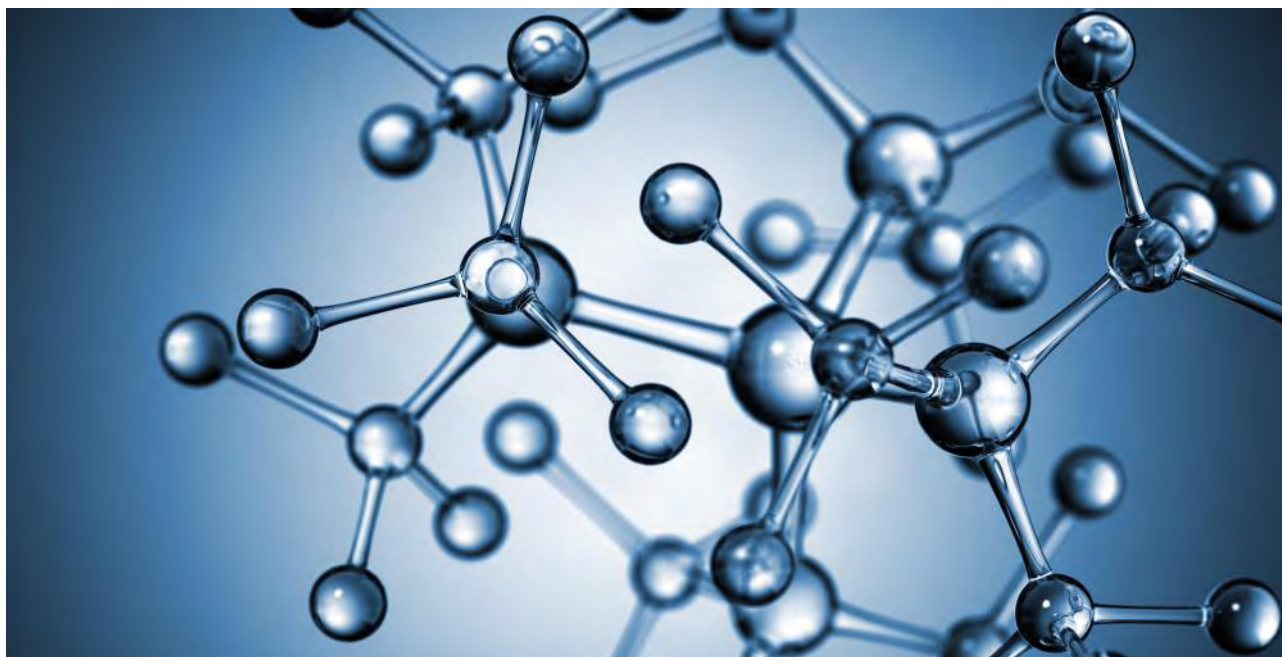


**Virukill<sup>®</sup>**



# NOT JUST ANOTHER DDAC

THERE ARE MANY DISINFECTANTS IN THE MARKET



Biosecurity and pre-placement disinfection is the least well understood of the disease management options in poultry production. Yet there are many different disinfectants in the market. Poultry producers often make their selection of what products to use based purely on cost. This might save some money at the start but will cost you many hundreds if not thousands during production. If the cheap products cannot inactivate the important pathogens, especially naked viruses at pre-placement, then you are wasting your time and money!

 **Virukill®**



**Virukill®** is a novel and unique disinfectant which has been especially developed for use in the poultry industry. All possible uses and application of **Virukill®** have been extensively researched. **Virukill®** is the only product which can be used continually in the drinking water and to spray the air around birds without any negative effects on production. The safety and efficacy of these applications have been extensively tested. The active ingredient of **Virukill®** is *didecyldimethylammonium chloride* (DDAC), a fourth generation Quaternary ammonium compound (QAC). There are many other QAC based products on the market.

***These QAC bases products are not the same as Virukill®***

## WHY IS VIRUKILL® NOVEL?

**Virukill®** is a patented novel formulation of the best of the DDAC based disinfectants. The patented formulation has taken the strong point of QAC disinfectants (**safety**) and have made **Virukill®** substantially less toxic than any other product with the same level of efficacy. **This means that Virukill® can be used in the drinking water of birds and to spray the air around the birds without any negative effects on production.** The safety of **Virukill®** has been extensively tested and you can ask your local representative for test results on this.

The modification of **Virukill®** has taken the weak point of QAC based disinfectants (poor efficacy against viruses) and made **Virukill®** highly effective against viruses. (Hence the name **Virukill®**). **Virukill®** has been extensively tested and found to be effective against all known poultry pathogens, including naked viruses (such as IBD, CAV and *Reovirus*), enveloped viruses (such as *Newcastle disease virus*, *Avian influenza* and *Infectious*

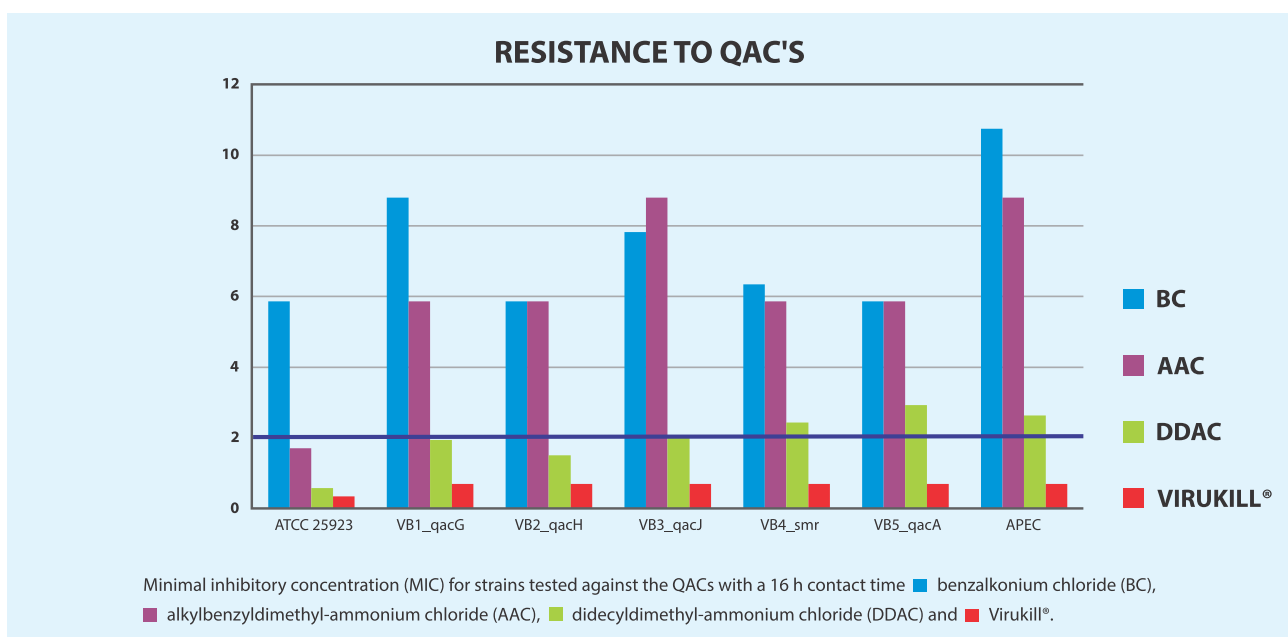
*bronchitis virus*), Gram positive bacteria (such as *Staphylococcus*, *Streptococcus*, *Clostridium*), gram negative bacteria (such as *E. coli*, *Salomonella*, *ORT*, *Pasteurella*) and fungi (such as *Aspergillus*). A full list of pathogens which **Virukill®** has been tested against is available.

The patented formulation of **Virukill®** has increased the efficacy of the product at least 5 times over the unmodified generic DDAC products. This is the main reason why **Virukill®** can be used in the drinking water and to disinfectant the air around the birds. Even at levels as low as the 100 ppm (10 ml **Virukill®** per 100 L) used in the drinking water of birds, viruses like NDV and bacteria like *E. coli* are inactivated. Higher levels of generic products are needed to effectively kill these pathogens and at these levels, negative effects on production, due to toxicity of the products start to happen.

**Virukill® is a unique balance between efficacy and toxicity – this unique balance allows Virukill® to be used in a continuous disinfection program without any negative effects on production.**

## HOW CAN YOU SEE THAT VIRUKILL® IS NOVEL?

The best way to show that **Virukill®** is not just another generic QAC can be seen from scientific research work which was done on resistance to disinfectants. In the graph below the MIC (Minimum Inhibition Concentration) for **Virukill®** is substantially lower than the MIC for the generic DDAC when testing against bacterial strains which are resistant to disinfectant.



# HOW TO MAKE USE OF VIRUKILL® IN POULTRY PRODUCTION

## PRE-PLACEMENT DISINFECTION

- 1) Dry clear the house and get rid of as much dust and dirt as possible.
- 2) Wash with a 0.2% dilution of **Virukill®** in water (200ml per 100 L) and apply like you would apply the water for washing – at least 2 litres per m<sup>2</sup> This can be applied by use standard high pressure washing system.
- 3) Allow to dry.
- 4) Disinfect house with a 1% solution of **Virukill®** (1 L per 100 L) at around 600 ml per m<sup>2</sup> The volume is dependent on how long the floor takes to dry. The floor must remain wet for 20 minutes. If the floor starts drying before this time, add more of the 1% **Virukill®** solution.
- 5) Disinfect cooling pads with a 0.2% **Virukill®** solution (200 ml per 100 L water). If **Virukill®** is used in cooling pads for the first time it is recommended to pre-disinfect the cooling pad with 1% **Virukill®** solution.
- 6) Disinfect all Equipment – including the drinking water system from the header tank through all of the drinkers with a 1% **Virukill®** solution.
- 7) Add bedding and all other items.
- 8) Replace all equipment which has previously been removed from the house and disinfected with a 1% **Virukill®** solution.
- 9) Do a final fogging if desired at the following application rates:

### **ULV Solution:**

500 ml **Virukill®**, 5 000 ml Propylene glycol, 14 500 ml Water.

### **Fogging Solution (Cold or Thermal):**

500 ml **Virukill®**, 17 000 ml Propylene glycol, 2 500 ml Water.

The rate for both fogging and misting is 550 ml per 1 000 m<sup>3</sup>

## FOOTBATHS

Use a 1% **Virukill®** solution and change the disinfectant once dirty.

## DRINKING WATER APPLICATION

Add 100 ppm **Virukill®** (10 ml **Virukill®** in 100 L water) to the drinking water of the birds on a continuous basis. The drinking system must first be flushed clear with a 1% **Virukill®** solution (1 L **Virukill®** in 100 L water) which the birds should not drink. **This has no negative impact on production parameters.**

**Please note that there is a 24 hour withdrawal period when vaccinating with live vaccines or treating with probiotics.**

## DISINFECTION OF THE AIR IN THE PRESENCE OF BIRDS

Spray the air around the birds with a 1% solution of **Virukill®** at application rate of approximately 4 ml per adult bird as often as required. Safety has been tested up to three sprays per day. **This has no negative impact on production parameters.**



Virukill® (Poly Dimethyl Ammonium Chloride 120g/ℓ)  
Reg. No: G2838 (Act 36 of 1947)

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