

# Fight influenza spread with Ultraxide H5N1 disinfectant



Bird flu is an infection caused by avian (bird) influenza (flu) viruses.

Bird flu is very contagious among birds and can make some domesticated birds, including chickens, ducks, and turkeys, very sick and kill them.

Unfortunately bird flu infection has been transferred to humans. Symptoms of bird flu in humans have ranged from typical flu-like symptoms (fever, cough, sore throat and muscle aches) to eye infections, pneumonia, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications.

During an outbreak of bird flu among poultry (domesticated chicken, ducks, turkeys), there is a possible risk to people who have contact with infected birds or surfaces that have been contaminated with excretions from infected birds. The current outbreak of avian influenza (H5N1) among poultry in Asia and Europe is an example of a bird flu outbreak that has caused human infections and deaths.

There currently is no commercially available vaccine to protect humans against the H5N1 virus that is being seen in Asia and Europe. Although vaccine development is in progress, the best

method to fight the infection and its spread would be to prevent the virus from thriving in the environment, through a solid disinfection and biosecurity measure.

In line with worldwide effort to control and fight H5N1 from spreading towards a global pandemic, Zagro has come up with a potent disinfectant with unmatched spectrum range by combining both Glutaraldehyde and QAC compound.

## The Synergistic Effect of Glutaraldehyde and QAC

- Glutaraldehyde has the property to bind itself to the proteins through their amine groups

- It has a very strong virucidal activity obtained by the cross-linking of the proteins of the naked (or hydrophilic) viruses capsid.

- It also combines with the nucleic acids contained in viruses (DNA/RNA). Bactericidal and fungicidal activities are due to the combination of glutaraldehyde with the proteinic parts of metabolic enzymes, and with the amino-acids.

- Being strictly hydrophilic, glutaraldehyde cannot cross the cell's lipid membrane nor the coating of lipophilic viruses. By itself it cannot cross the lipid barrier, but with a



stabilized combination technique with QAC. Ultraxide formula allows glutaraldehyde to kill germs from the inside due to synergistic blend with highly tensio-active Quaternary Ammonium Chloride (QAC).

- Quaternary Ammonium Chloride (QAC) is cationic tensio-active agents. At low concentration they have cidal properties on a wide spectrum of micro-organisms (Gram+ & Gram- bacteria, fungi, viruses).

- Their major site of action is the cell membrane, where they create dissolution of phospholipids (cell membranes) and cause changes in permeability that allow the escape of cell constituents and cause cell disorientation. These changes in permeability allow glutaraldehyde to penetrate inside the micro-organisms.

Until such time that the virus can be effectively contained and eradicated by vaccine development for both avians and humans, the observation of strict and viable biosecurity is the only option. For more information, and technical support contact Zagro Asia Limited.

**Zagro Singapore Pte Ltd**  
**Zagro Global Hub 5 Woodlands Terrace, Singapore 738430**

**Tel: +65 6759 1811 Fax: + 65 6759 1855/66/77**

**Website: [www.zagro.com](http://www.zagro.com) Email: [info@zagro.com](mailto:info@zagro.com) Circle 12 on enquiry card**