Zagro promotes Ultraxide H5N1 disinfectant against avian 'flu

Zagro says that it has developed "a potent disinfectant with unmatched spectrum range" against avian influenza by combining both glutaraldehyde and quaternary ammonium chloride (QAC), christened Ultraxide.

According to the company the two ingredients work together more effectively than either one alone.

Glutaraldehyde binds itself to proteins through their amine groups. It has very strong virucidal activity, obtained by cross-linking the proteins of the naked (or hydrophilic) viruses' capsid. It also combines with nucleic acids in viruses DNA/RNA. Bactericidal and fungicidal properties are due to the combination of glutaraldehyde with the proteinic parts of metabolic enzymes.

Glutaraldehyde by itself cannot cross the cell's lipid membrane nor the coating of lipophilic viruses, but in a stabilized combination with QAC, Zagro says that its Ultraxide formula allows glutaraldehyde to kill organisms from the inside because QAC is a highly tensio-active cationic agent.

At low concentrations, QAC has cidal properties against a wide spectrum of micro-organisms _ Gram-positive and Gram-negative bacteria, fungi and viruses.

The major site of action is the cell membrane, where QAC triggers dissolution of phospholipids (cell membranes) and causes changes in permeability that allow the escape of cell constituents and cause cell disorientation. These changes in permeability allow glutaraldehyde to penetrate the microorganisms. ●