

# HERLISIL

Hydrogen peroxide-based specialty  
for animal drinking water



The green chemistry of hydrogen peroxide ( $H_2O_2$ ) is fortified with a silver complex and stabilized through a unique technology to create a powerful disinfectant. A versatile agent, HERLISIL is very effective against biofilms in chicken drinking water pipelines in farms as well as enhancing potability of drinking water for chickens. It is also used for air fumigation for removing all types of pathogens.

## Key Attributes

- Hydrogen peroxide biodegrades into only water and oxygen
- Stable over a wide pH and temperature range
- Reduces the re-entry time from 4 hours to 1 hour after fumigation
- High LD50 value on mammals
- Works with a short contact time

## Application

- Drinking water line at 5 - 10 ml of **HERLISIL** in 100l of water
- Fogging at 100 - 500 ml of **HERLISIL** in 100l of water
- Hard surface sanitizer at 1 - 3 l of **HERLISIL** in 100l of water

## Efficacy of approved chemistries

Disinfectants	Ozone	Chlorine Base	UV Sterilisation	H <sub>2</sub> O <sub>2</sub> +Silver Complex
Effective against biofilms	POOR	MEDIUM	POOR	GOOD
Corrosiveness in measured state	LOW	MEDIUM	NONE	LOW
Cost of use	HIGH	LOW	HIGH	LOW
Sterilisation speed	FAST	MEDIUM	FAST	MEDIUM
Changes taste & develop odor	NO	YES	NO	NO
Hazard for human beings*	NO	YES	NO	NO
Easy to use	NO	YES	NO	YES
Formation of carcinogens	YES	YES	NO	NO
Storage capability	N/A	POOR	N/A	GOOD
Score comparison	8	7	10	17

Score **2 1 0**

\*\* If concentrated mildly higher than usual

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Laboratory results of chlorine and hydrogen peroxide + silver complex treated water from broiler farms collected at **day 4**.

Water quality tests	Chlorine treated				Hydrogen Peroxide + Silver Complex			
	Main tank		Faucet		Main tank		Faucet	
	Farm 1	Farm 2	Farm 1	Farm 2	Farm 1	Farm 2	Farm 1	Farm 2
Total plate count	TNTC*	2	29	TNTC*	1	0	0	0
Coliform count/100ml	240	4	4	4	0	0	0	0
Presence of E. coli	Positive	Negative	Positive	Negative	Negative	Negative	Negative	Negative
Potability	Non-potable	Non-potable	Non-potable	Non-potable	Potable	Potable	Potable	Potable

Laboratory results of chlorine and hydrogen peroxide + silver complex treated water from broiler farms collected at **day 8**.

Water quality tests	Chlorine treated				Hydrogen Peroxide + Silver Complex			
	Main tank		Faucet		Main tank		Faucet	
	Farm 1	Farm 2	Farm 1	Farm 2	Farm 1	Farm 2	Farm 1	Farm 2
Total plate count	TNTC*	2	30	TNTC*	1	0	0	0
Coliform count/100ml	4	4	4	4	0	0	0	0
Presence of E. coli	Positive	Negative	Positive	Negative	Negative	Negative	Negative	Negative
Potability	Non-potable	Non-potable	Non-potable	Non-potable	Potable	Potable	Potable	Potable

Remark: Comparing chlorine and hydrogen peroxide with silver complex, results showed that coliforms and bacterial contamination are more likely to occur and recur in water samples treated with chlorine disinfectant as opposed to hydrogen peroxide with silver complex

Source: [https://www.researchgate.net/publication/310768607\\_Effects\\_of\\_Hydrogen\\_Peroxide\\_and\\_Silver\\_Complex\\_on\\_the\\_Potability\\_of\\_Drinking\\_Water\\_in\\_Broiler](https://www.researchgate.net/publication/310768607_Effects_of_Hydrogen_Peroxide_and_Silver_Complex_on_the_Potability_of_Drinking_Water_in_Broiler)

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