

# Antimicrobial Effects on the *Legionella Bacteria*

*Legionella* proliferates when sanitary conditions are not properly maintained in such environments where water is circulated; as in cooling towers, hot baths, pools, humidifiers, and hot water heaters. Infection caused by this *Legionella* bacteria is called Legionnaires' disease, which involves a high fever, breathing difficulty, nausea, and impaired consciousness. When such symptoms sharply deteriorated, it may result in death.

Care must be given to people with weak resistance, such as infants and the elderly, and those who already have another illness because they are vulnerable to infections.

Zeomic demonstrates antimicrobial effects even against *Legionella bacterial*!

## Test Method

Sample : Plastic particulates  
Additive volume : 3g  
Test fluid volume : 500 mL  
Test bacteria : *Legionella pneumophila* (GIFU 9134)



Plastic particulates

## Test Results

Test bacteria	Target	Additive volume	Viable bacteria count (/mL)			
			Start time	6 hours later	24 hours later	48 hours later
<i>Legionella bacteria</i>	Sample	3g/500ml	7.0E5	3.2E5	<100	<100
	Control	—	7.0E5	1.0E6	1.8E6	1.7E6

In the chart, E signifies the indices. (Example: 1.0E5 = 1.0 x 10<sup>5</sup>)

In the chart, <100 signifies a non-detectable amount.