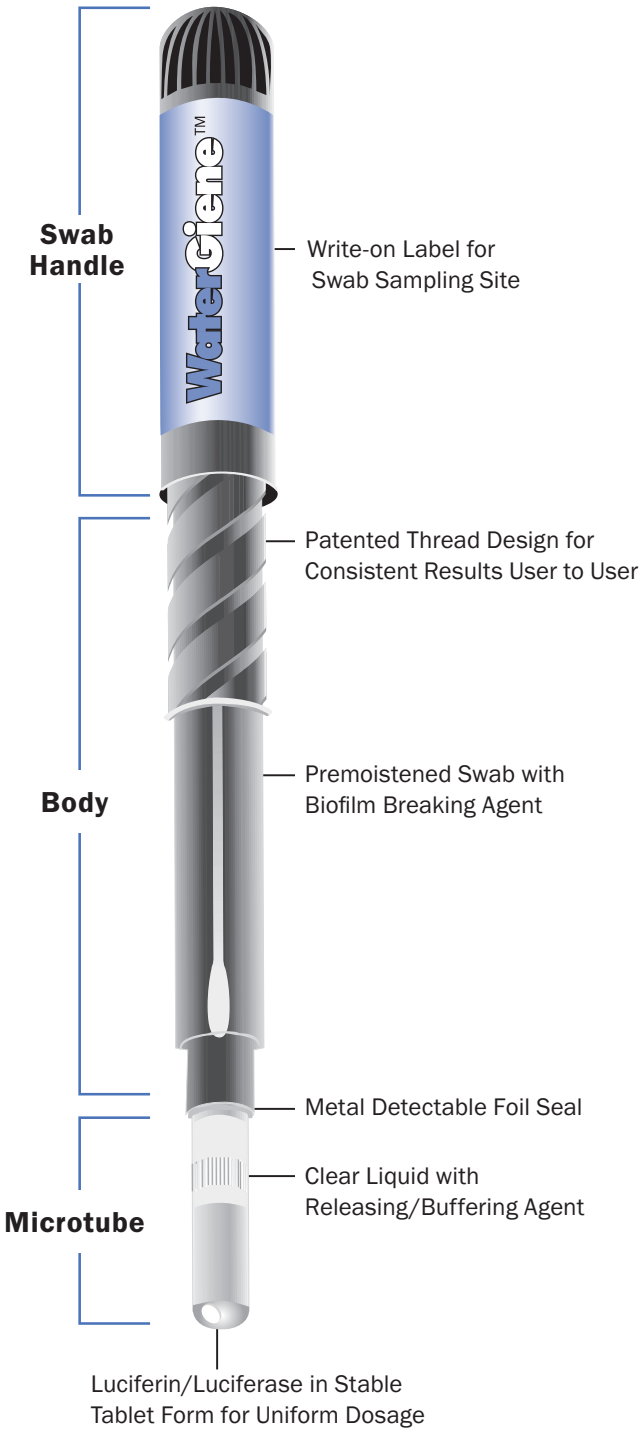
WaterGiene™ : New Sensitive ATP Indicator for Water Quality



THE FIRST SENSITIVE ATP INDICATOR TEST FOR WATER QUALITY

WaterGiene™ offers a sensitive and fast remediation to water quality control programs by detecting total ATP in water in seconds. ATP (adenosine triphosphate) presence in water is an indicator of microorganisms, as well as plant, animal or food material. These materials are potentially hazardous, and can result in bio-fouling of piping and processing equipment.

WaterGiene is 10-100 times more sensitive at detecting bacteria and other biologics from solutions than previous ATP tests, (see Table 1). The real time detection of ATP in water at these more sensitive levels offers new biologic control not achieved by traditional microbiology or other ATP based tests.

WaterGiene offers breakthrough detection in just 30 seconds using a simple swab, twist, and count format. Water quality can be measured by dipping/twirling into a water sample or by swabbing a rinsed surface. Used as a surface swab, the WaterGiene detects microorganisms as low as 100 cfu/100 ml. A simple twist motion activates reagents before the swab is inserted into and read on a luminometer.

ATP in water may indicate process control loss due to the presence of microbes and/or organic debris. WaterGiene has broad application to a variety of manufacturing operations.

WaterGiene offers an immediate assessment of water quality and water treatment for a variety of industries and locations.

- Rinse water
- Clean in place systems
- Storage tanks
- Cooling towers (water economizers)
- Warmers
- Tap and supply water

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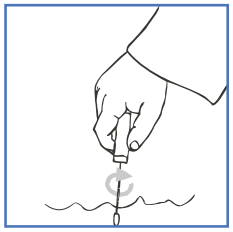
Designed for use with:

novaLUM™

LumGiene™

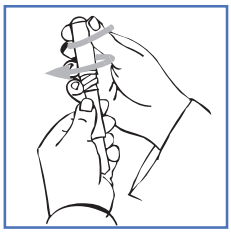
TEST PROCEDURE

1



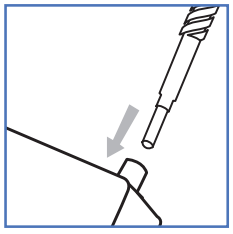
For use in water and on cleaned wetted surfaces, place swab in sample for 5 seconds while twirling. For rinse surfaces, swab 16 square inches, while rotating the handle to achieve full swab contact.

2



Reinsert swab into body and engage the threads. Screw the swab all the way down. Gently shake 3 times to bring liquid down into the bottom of the clear tube.

3



Insert swab into novaLUM™ chamber. Press down until swab is fully seated. Select WaterGiene channel on novaLUM. RLU [Relative Light Unit] values greater than 0 indicate that bacteria, food residue, or other biological material has been detected [see table below].

TABLE 1: SENSITIVITY

Sensitivity measured with WaterGiene

Bacterial§ Concentration cfu/ml^	WaterGiene in novaLUM mean RLU [% Positive]
1,500,000	————————
150,000	1873336 [100%]
15,000	181118 [100%]
1,500	23287 [48%]
150	0 [0%]

§ Four different bacteria studied, *E.coli, Pseudomonas, Citrobacter, and Enterobacter.* Bacteria were cultured then rinsed in saline and added to pure water. Mean of 52 determinations

^ Divide by 25 to convert to approximate surface concentration, cfu/100cm2

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