

ATP-FLOW TOTAL

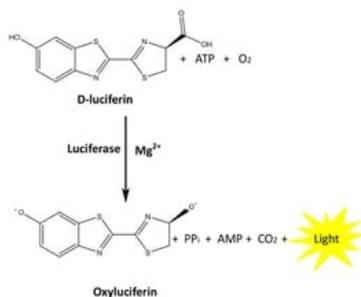
Water ATP Test

1. Description

The ATP-FLOW Total water test is a single-use test device that contains a swab to monitor ATP levels in water as a quality indicator in areas like Clear-In-Place (CIP) systems and rinse water samples. This product can be used with the PhosReader Luminometer for monitoring industrial water treatment systems such as cooling towers and a variety water systems in industry .

2. Principal of the assay

ATP (Adenosine triphosphate) is a molecular present in all living organisms, so it is a good indicator of the presence of microorganisms or residues thereof that may promote their growth. After proper cleaning, all sources of ATP should be significantly reduced. When monitoring begins, the reagent in the test (Luciferase/Luciferin) reacts with the ATP collected on the swab to produce luminescence (sch.1). The intensity of the light emitted is proportional to the amount of the ATP, and therefore , it is also proportional to the degree of contamination. Measurement of the light requires the use of a PhosReader Luminometer and the results are displayed in Relative Light Units (RLU). RLU result provides information on the level of contamination within seconds.



Scheme 1. ATP detection scheme

3. Reagents provided

The ATP-FLOW Total water kit contains 20 ready to use test devices for 20 measurements.

- 20 Total Water swabs in foils.

ATP-FLOW Total Water Test	SW1120
Foil containing 20 Water ATP tests	20
E-manual	

4. Storage Instructions

The ATP-flow Total Water tests should be stored at temperature between 2-8 °C, away from light. Its shelf life is 12 months when stored at the recommended temperature .Store in its packaging until use. Refer to expiration date on label.

5. Instruction for Use

- Allow ATP-Flow Total Water test to equilibrate to room temperature (21-25 °C) before use(fig.1). *Do not use the test if you have just removed it from the fridge. If the device is activated by accident, do not use it.*
- Hold the test firmly and then rotate and unscrew the reaction tube below the blue connector of ATP-FLOW Total Water test, collect liquid sample in appropriate tubes, immerse the comb tip of the test swab into the water or other liquid sample and shake it gently. (fig.2)
- After sampling, replace the swab back to tube.(fig.3)
- Remove the protective cap on ATP-FLOW Total Water swab, hold the test vertically in your hand, activate it by pressing down the spiral head firmly until to expel all liquid into the tube (fig.4).
- Shake the test vigorously sideways for at least 5sec (fig.5). *Do not use vortex to make the reagent completely react with the sample.*
- Once activated the swab quickly insert the ATP-FLOW Total water test into the test chamber of the PhosReader Luminometer. After closing the Luminometer cover, press the central button (OK) to obtain the RLU value. Result will be displayed in 10 sec (fig.6)

IMPORTANT:

Read carefully the instructions for use of the Luminometer instrument.



6. Precautions & Safety

6.1 Precautions related to the procedure

1. Disposable gloves should be worn during the experiment to avoid contamination of exogenous ATP.
2. Make sure that the sample collection dipper comes only in contact with the liquid to be tested.
3. Once activated the swab must be placed in the PhosReader instrument and read it within 15sec. The ATP-FLOW Total Water test, may be labeled, stored and left un-activated before activation and measurement.
4. Do not use the test results to determine the water quality for drinking or as an ingredient in foods or beverages .
5. Do not use ATP-FLOW Total Water swab in direct sunlight.

6.2 Health and safety precautions

1. The internal reagent of ATP-FLOW Total Water test is diluted and can be safely used for detection in food processing industry.
2. If standard lab operation procedures are strictly followed, the compositions of ATP-FLOW Total Water test will not be harmful for human health.
3. In case the internal reagent of ATP-FLOW Total Water test comes into contact with eyes or skin, please flush eyes or skin with plenty of water. Do not ingest, inhale, get in eyes , on skin, or on clothing. The material safety data (MSDS) can be provided in demand.
4. Dispose of this product after use, according to your local regulations outlined by the local governments for proper disposal of waste materials.

7. Interpretation of Results

The portable PhosReader Luminometer takes the light energy as reference to output the test value and displays the test result in quantitative and qualitative form. The test result exhibits the cleanliness of the tested specimen, which be between 0 and 999999 relative light units (RLU, 1 RLU = 1x10⁻¹⁶mol of ATP). According to the user-defined upper and lower limits, the detector will automatically offer the determination of the test result and displayed as <PASS> , or <FAIL> .

The higher the RLU number, the more contaminated the sample .

It is required that you set predetermined pass/fail levels so that users of the system know what action is required once the result is known .