



## Clean-Trace™

## Product Instructions

### Water-Free ATP

#### Description:

3M™ Clean-Trace™ Water-Free ATP test is a single-use test device that contains sample collection rings for the collection of an aqueous sample [figure 1]. The sample collection rings are coated with a wetting agent to aid in the collection of a liquid sample without the release of Adenosine Tri-Phosphate (ATP) from intact microbial cells. Upon activation of the test device, reagent in the cuvette of the test device reacts with ATP collected on the sample collection rings to produce light. The intensity of the light is proportional to the amount of non-microbial ATP. Measurement of the light requires the use of a 3M™ Clean-Trace™ NG Luminometer and the results are displayed in Relative Light Units (RLU). The test kit contains 100 ready to use test devices packaged as units of 10 per individual foil pouch.

#### Applications:

Rapidly assess the amount of non-microbial ATP in an aqueous sample. ATP is an indicator of organic residues and microorganisms. Together with the 3M™ Clean-Trace™ Water-Total ATP test, the 3M™ Clean-Trace™ Water-Free ATP test can determine the amount of microbial ATP in samples from Cooling Towers, or other industrial water systems.

#### ⚠ WARNINGS

Consult the Material Safety Data Sheet for additional information and local regulations for disposal.

#### ⚠ CAUTIONS

ATP is a common substance. It is present on skin, hair and on many surfaces. Do not touch the sample collection rings or sample stick; do not contaminate the solution to be tested.

Do not use devices past expiry date.

The 3M Clean-Trace Water-Free ATP test detects ATP and so will not detect residues of products or other analytes with low or zero ATP present.

Although the 3M Clean-Trace Water-Free ATP test is very sensitive, a solution cannot be considered sterile on the basis of a 3M Clean-Trace Water-Free ATP test result.

Do not use the 3M Clean-Trace Water-Free ATP test in direct sunlight.

Remove the 3M Clean-Trace Water-Free ATP sample stick from the sample as soon as the rings have filled with liquid.

Do not insert the 3M Clean-Trace Water-Free ATP sample stick too deep into the sample (only immerse the rings).

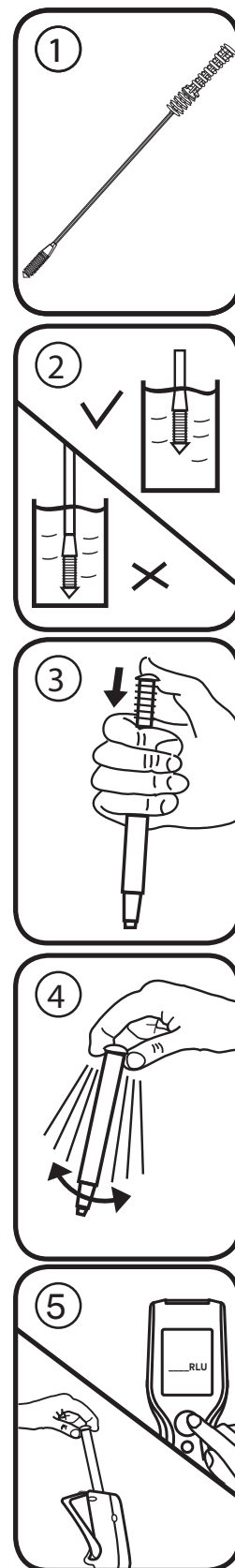
The 3M Clean-Trace Water-Free ATP test is designed to give more information on the sample following analysis with 3M Clean-Trace Water-Total ATP test. However, dipping the Total ATP stick into the sample changes the sample because ATP is released from any microbes present. Therefore do not use the same sample for subsequent Free ATP or microbiology tests. Take one sample and make 2 sub-samples from this, one can be used for testing Total ATP and the other one for any additional tests that are required.

#### User Responsibility

Users are responsible for familiarizing themselves with product instructions and information. Visit our website at [www.3M.com/foodsafety](http://www.3M.com/foodsafety), or contact your local 3M representative or distributor for more information.

When selecting a test method, it is important to recognize that external factors such as sampling methods, testing protocols, sample preparation, handling, and laboratory technique may influence results.

It is the user's responsibility in selecting any test method or product to evaluate a sufficient number of samples with the appropriate matrices and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.



It is also the user's responsibility to determine that any test methods and results meet its customers' and suppliers' requirements.

As with any test method, results obtained from use of any 3M Food Safety product do not constitute a guarantee of the quality of the matrices or processes tested.

### Limitation of Warranties / Limited Remedy

EXCEPT AS EXPRESSLY STATED IN A LIMITED WARRANTY SECTION OF INDIVIDUAL PRODUCT PACKAGING, 3M DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. If any 3M Food Safety Product is defective, 3M or its authorized distributor will, at its option, replace, or refund the purchase price of the product. These are your exclusive remedies. You must promptly notify 3M within sixty days of discovery of any suspected defects in a product and return it to 3M. Please call Customer Service (1-800-328-1671 in the U.S.) or your official 3M Food Safety representative for a Returned Goods Authorization.

### Limitation of 3M Liability

3M WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS. In no event shall 3M's liability under any legal theory exceed the purchase price of the product alleged to be defective.

### Storage and Disposal

For maximum shelf life, store between 2°C - 8°C (36°F - 47°F). Store in pouch until time of use. Expiry date and lot number are noted on each pouch. After use, may contain microorganisms that may be a potential biohazard. Follow current industry standards for disposal.

### Instructions for Use

Before the 3M Clean-Trace Water-Free test device is activated, it is important to ensure your 3M™ Clean-Trace™ NG Luminometer is switched on and initialized. Refer to the manual provided with the instrument for full details.

1. Place the 3M Clean-Trace Water-Free ATP test devices at room temperature for at least 10 minutes before use.
2. Collect liquid samples from the test sites of interest. Process each sample through steps 3-6. DO NOT batch at any of these stages.
3. Swirl to mix the sample. Remove a 3M Clean-Trace Water-Free ATP test device from the foil pouch. Remove the sampling stick from the 3M device and immerse the sample collection rings into the liquid under test, tapping the handle gently if bubbles form [figure 2]. Immediately remove the sample head from the solution to be tested and carefully return the sampling stick to the test device such that the handle is at its starting position.
4. To process the sample, push down firmly on the top of the 3M Clean-Trace Water-Free ATP sample stick handle [figure 3]. The handle will slide into the test device tube and the top of the handle should be level with the top of the device tube when fully depressed. Grip the top of the test device and shake rapidly side-to-side for at least five seconds to mix the sample and reagent [figure 4].
5. Immediately open the sample chamber of the 3M Clean-Trace NG Luminometer and insert the 3M Clean-Trace Water-Free ATP test device. Close the chamber cap and press the measure button. The light emitted by the 3M Clean-Trace test device will be measured and the result (in RLU) will appear on the display [figure 5].

How to best utilize 3M™ Clean-Trace™ Water-Free ATP	
Do	Do not
Hold the 3M Clean-Trace Water-Free ATP device in the VERTICAL position on activation and shake rapidly from SIDE TO SIDE for at least 5 seconds and read immediately in the 3M Clean-Trace NG Luminometer.	Activate when not in the vertical position, do not shake up and down, do not shake like a thermometer.
Use a vessel of at least 25 ml (>20 mm diameter)	Use a test tube or other small diameter vessel for samples.
Sample, activate, and measure 3M Clean-Trace Water-Free test devices ONE AT A TIME when a number of samples are to be measured.	Activate all 3M Clean-Trace Water-Free ATP devices and then test one at a time.
Place the 3M Clean-Trace NG Luminometer in the vertical position when a measurement is made.	Hold the 3M Clean-Trace NG Luminometer horizontally or lay down on the bench to read a device.
Always remove the last 3M Clean-Trace Water-Free ATP device from the 3M Clean-Trace NG Luminometer chamber when the measurement is completed.	Leave a 3M Clean-Trace Water-Free ATP test device in the chamber when the measurement is completed.

## Interpretation of Results

The test will determine the non-microbial ATP content of the sample. The test is intended to provide a guide to aid in the interpretation of the 3M Clean-Trace Water-Total ATP test (AQT100). Use of this test will allow the operator to estimate the microbial component of a Total test result by comparing the relative levels of Total and Free Results.

For cooling or process water, it is useful to establish a baseline of RLU values over time. This baseline can then be used to identify abnormal readings, seasonal variations, and patterns of contamination that may occur with various treatment methods. For further information, contact 3M Food Safety Technical Services.

## Explanation of symbols



Attention, see instructions for use



The lot in a box and the hourglass symbols represent the lot number and expiry date. The lot in a box is followed by the lot number: 621/Y1. The hourglass is followed by a day, month and year which represents the expiry date (day, month and year): 21JUN 2012



Store between given temperatures



Protect from direct sunlight