NEOGEN®

Clean-Trace®

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Product Instructions AQT200

- EN Water Plus - Total ATP
- FR Plus - Eau ATP Total
- DE Wasser Plus - Gesamt-ATP
- IT Water Plus - ATP totale
- ES Agua Plus - ATP Total
- NL Water Plus - Totaal ATP
- SV Vatten Plus - Total ATP
- DA Vand Plus - Total ATP
- NO Vann Pluss - totalt ATP
- FI Water Plus - Total ATP Vesitesti
- PT Water Plus - ATP total
- EL Νερό - Συνολική ATP
- PL Woda Plus - Total ATP
- HU Víz Plusz – Összes ATP
- CS Pro kontrolu čistoty vody – Total ATP
- RO Apă Plus - ATP Total
- RU Тест для определения общего содержания АТФ в воде
- TR Su Testi-Toplam ATP
- JA 水中ATP測定用試薬プラス
- ZH 水质检测 - 总 ATP

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NEOGEN®

Clean-Trace®

Product Instructions

Water Plus - Total ATP

Description

The Neogen® Clean-Trace® Water Plus - Total ATP test is a single-use device that contains sample collection rings for the collection of an aqueous sample to rapidly assess the standards of hygiene and sanitation procedures for equipment and the efficiency of Clean In Place (CIP) procedures by the rapid measurement of the total ATP in the rinse water [figure 1]. The total ATP in process water(s), water tanks and cooling towers may also be measured to assess the effect of biocide treatment. ATP is an indicator of organic residues and microorganisms. The sample collection rings are coated with a cationic agent to aid in the collection of a liquid sample and the release of Adenosine Triphosphate (ATP) from intact cells. Upon activation of the test, reagent in the cuvette of the device reacts with ATP collected on the sample collection rings to produce light. The intensity of the light is proportional to the amount of ATP and therefore the degree of contamination. Measurement of the light requires the use of a Neogen® Clean-Trace® LM1 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.

⚠ SAFETY INFORMATION

Please read, understand and follow all safety information contained in these instructions prior to use of this test device. Consult the Material Safety Data Sheet for additional information including regulations for disposal, especially disposal of unused test devices.

⚠ CAUTION

To reduce the risks associated with environmental contamination which, if not avoided, could result in minor or moderate injury:
- After use, follow industry standards for disposal of waste including used or expired test devices.

Notices

Please read, understand and follow all safety information contained in these instructions prior to use of this device.

Consult the Material Safety Data Sheet for additional information including disposal of unused devices.

To avoid inaccurate RLU readings: do not touch or contaminate the device or the water sample to be tested.

To avoid inaccurate RLU readings: do not insert the sample stick too deep into the sample, only the sample rings should be immersed.

To avoid inaccurate results: do not use a sample more than once, or for subsequent testing (ATP or microbiological).

To avoid inaccurate RLU readings: do not use devices beyond the expiration date.

To avoid inaccurate results: do not use test in direct sunlight.

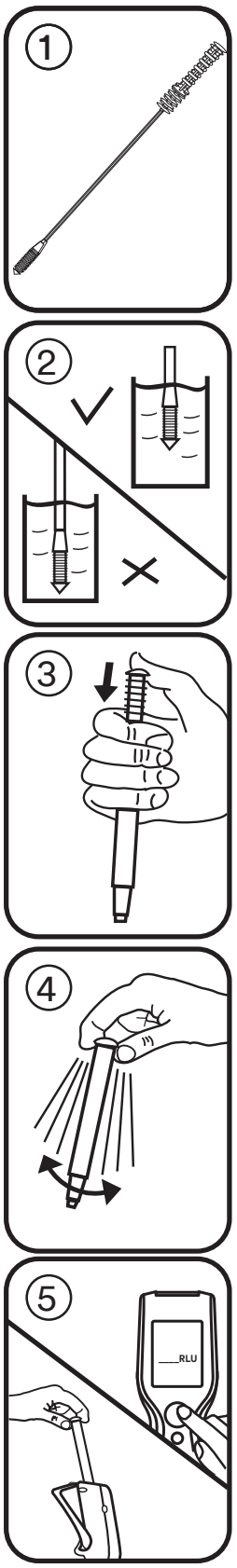
To avoid inaccurate results: do not use non-Neogen Luminometers to read the test results.

To avoid inaccurate results: do not use the test results to determine the water quality for drinking or as an ingredient in foods or beverages.

User Responsibility

Users are responsible for familiarizing themselves with product instructions and information. Visit our website at **www.neogen.com**, or contact your local Neogen 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 Neogen 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, NEOGEN DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. If any Neogen Food Safety Product is defective, Neogen 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 Neogen within sixty days of discovery of any suspected defects in a product and return it to Neogen. Please contact your Neogen representative or authorized Neogen distributor for any further questions.

Limitation of Neogen Liability

NEOGEN 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 Neogen's liability under any legal theory exceed the purchase price of the product alleged to be defective.

Storage and Disposal

For maximum shelf life of 12 months, store between 2°C - 8°C (36°F - 46°F), or store at 21°C - 25°C (70°F - 77°F) for 2 months shelf life. Store in pouch until time of use. If continually stored at 21°C - 25°C (70°F - 77°F), do not use after 2 months. Expiry date and lot number are noted on each pouch.

Instructions for Use

Before the Neogen Clean-Trace Water Plus - Total ATP test device is activated, it is important to ensure your Neogen® Clean-Trace® LM1 Luminometer is switched on and initialized. Refer to the manual provided with the instrument for full details.

1. Place the Neogen Clean-Trace Water Plus - Total ATP test devices at room temperature for at least 10 minutes before use if devices were stored at 2°C - 8°C (36°F - 46°F). Optimal room temperature for the test is 15°C - 30°C (59°F - 86°F).
2. Collect liquid samples from the test sites of interest. Process each sample through steps 3-6. Process each sample before processing the next sample.
3. Swirl to mix the sample. Remove a Neogen Clean-Trace Water Plus - Total ATP test device from the foil pouch. Remove the sample stick from the test device and immerse the sample collection rings into the liquid under test only to the top of the rings, tapping the handle gently if bubbles form [figure 2]. Immediately remove the sample stick from the solution to be tested and carefully return the sample 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 Neogen Clean-Trace Water Plus - Total 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 test device tube when fully depressed. Grip the top of the 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 Neogen Clean-Trace LM1 Luminometer and insert the Neogen Clean-Trace Water Plus - Total test device. Close the chamber cap and press the measure button. The light emitted by the Neogen Clean-Trace Water Plus - Total ATP test will be measured and the result (in RLU) will appear on the display [figure 5].

How to best utilize Neogen® Clean-Trace® Water Plus - Total ATP	
Do	Do not
Hold the Neogen Clean-Trace Water Plus - Total 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 Neogen Clean-Trace LM1 Luminometer.	Activate when not in the vertical position, do not shake up and down, do not shake aggressively.
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 Neogen Clean-Trace Water Plus - Total ATP tests ONE AT A TIME when a number of samples are to be measured.	Activate all Neogen Clean-Trace Water Plus - Total ATP devices and then test one at a time.
Place the Neogen Clean-Trace LM1 Luminometer in the vertical position when a measurement is made.	Hold the Neogen Clean-Trace LM1 Luminometer horizontally or lay down on the bench to read a Neogen Clean-Trace Water Plus - Total ATP device.
Always remove the last Neogen Clean-Trace Water Plus - Total ATP device from the Neogen Clean-Trace LM1 Luminometer chamber when the measurement is completed.	Leave a Neogen Clean-Trace Water Plus - Total ATP test device in the chamber when the measurement is completed.

Interpretation

- 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.
- Even a perfectly clean sample will not give a zero RLU test result as the Neogen Clean-Trace LM1 Luminometer instrument and Neogen Clean-Trace Water Plus - Total ATP test device have a non-zero “background” RLU test result level.

For detailed advice on establishing pass/fail RLU test result levels, consult the Neogen “Hygiene Management Guide” document available on the CD provided with the Neogen® Clean-Trace® Data Trending software. The process described in this document establishes reference RLU test result levels using RLU test results obtained by you from your normal cleaning procedures to set pass/fail RLU test result levels. You can compare RLU test results from your normal cleaning procedures to control water samples.

For cooling or process water, it is useful to establish a baseline of RLU test result values over time. You can then use this baseline to identify abnormal readings, seasonal variations, and patterns of contamination that may occur with various treatment methods. For further information, contact Neogen Food Safety Technical Services.

Explanation of Symbols

info.neogen.com/symbols

Neogen Food Safety

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