Contamination Control Kit

ATP Biomass Test Kit

Part No: CCK-4

Description/ Intended Use:

Contamination Control Kit is a high-precision ATP test for liquid samples. It provides expanded flexibility over all-in-one tests allowing sample clean up in case of high quenching particulates or fibers in aqueous samples. Kit is designed to be used with Hygiena luminometers for assessment of hygienic status of process water by ATP measurement. Contamination Control Kit will determine total ATP content in a sample. ATP is derived from organic debris; e.g., food product residues and microorganisms present in a sample. The greater the level of organic debris (bioburden), the greater level of ATP. This in turn is proportional to amount of light produced by test; therefore, the greater the RLU result, the higher contamination in the sample.

Materials Provided:

Contamination Control Kit contains sufficient reagents for 100 tests with each component supplied in units of 50 tests.

- **2 bottles liquid-stable luciferin/luciferase reagent** provided in a white plastic screw-cap bottle (white cap)
- **2 bottles extractant** to release ATP from any microorganisms in sample provided in a clear plastic screw-cap bottle (clear cap)
- **1 vial ATP Positive Control** to ensure correct storage of kit reagents
- **100 sample cuvettes**

Required Materials (Not Included):

- Hygiena luminometer
- Hold-Rite Applicator (HR002)
- Pipette and tips for 100µl volume

Preparation:

1. Remove a sufficient number of each bioluminescence reagent and extractant from kit box based on number of tests to be performed (1 bottle = 50 tests)
2. Allow 10 minutes for refrigerated bioluminescence reagent and extractant bottles to reach room temperature before use (21 – 25 °C)
3. Return remainder of kit to refrigerator. Reagents are supplied ready-to-use with no preparation required.

Procedure:

1. Before processing test, turn on luminometer.
2. Using a sterile pipette tip, add 100µl of sample into cuvette.
3. Using new pipette tip, pipette 100µl of extractant into same cuvette.
4. Mix gently for 3 – 5 seconds.
5. Allow to stand for a minimum of 60 seconds.
6. Using new pipette tip, pipette 100µl of bioluminescence reagent into cuvette with sample and extractant.
7. Mix gently for 3 – 5 seconds.
8. Attach cuvette to Hold-Rite Applicator and insert into instrument chamber.
9. Holding luminometer upright, close lid and press “OK” to initiate measurement. Results will appear in 15 seconds.
10. When testing is completed, cap bottles and return unused reagents to refrigerator.

Negative ATP Control:

A negative control reading may be obtained using a sample of ATP-free water. Follow the procedure above. RLU value should be 0 - 2 RLU.

Positive ATP Control:

A positive ATP control can be performed to check storage/shipping conditions of kit reagents.

1. In a cuvette, pipette 100µl sterile water, 100µl of extractant, 25µl ATP Positive Control, and 100µl of bioluminescence reagent using a new pipette tip for each material.
2. Mix gently for 3 – 5 seconds.
3. Attach cuvette to Hold-Rite Applicator and insert into instrument chamber.
4. Holding luminometer upright, close lid and press “OK” to initiate measurement. Results will appear in 15 seconds.
5. RLU value should be greater than 1,000 RLU.

Interpretation of Results:

1. The higher the RLU number, the more ATP in the sample.
2. It is recommended to set pass/fail levels so action can be taken. Determining pass/fail levels is sample-specific. A common way to determine levels is by running ATP tests along with standard method micro plates. Once an acceptable level of correlation between the two methods is established, pass/fail levels can be set. For more information on setting pass/fail levels, refer to www.hygiena.com or contact a Hygiena representative.
3. For cooling or process water, establish a baseline RLU value over time by the same process described above. This baseline can then be used to identify abnormal readings, seasonal variations, and patterns of contamination that may occur with various treatment methods.

Calibration Control:

It is advisable to run positive and negative controls according to Good Laboratory Practices. Hygiena offers the following luminometer control:

- Calibration Control Kit (Part # PCD4000)

Storage & Shelf Life:

- Store at 2 – 8 °C (36 – 46 °F)
- Do not freeze.
- Kit has a 12 month shelf life. Check expiration date on label.
- Kit will tolerate temperature abuse for 4 weeks at room temperature (21 – 25 °C)

Disposal:

Used devices are not a biohazard and may be discarded as trash.

Safety & Precautions:

Follow standard Good Laboratory Practices where appropriate.

- Use a fresh, clean ATP-free pipette tip for each sample pipetting.
- Avoid contamination by ATP. Avoid touching reagent with bare hands and handling parts of cuvettes and reagent vials that come into direct contact with sample and/or reagent.

For further safety instruction, refer to Safety Data Sheet (SDS).

Hygiena Liability:

Hygiena will not be liable to user or others for any loss or damage whether direct or indirect, incidental or consequential from use of this device. If this product is proven to be defective, Hygiena’s sole obligation will be to replace product or at its discretion, refund the purchase price. Promptly notify Hygiena within 5 days of discovery of any suspected defect and return product to Hygiena. Please contact Customer Service for a Returned Goods authorization number.

Contact Information:

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