



## Quantification of the microbial total flora of the air by ATP-metry



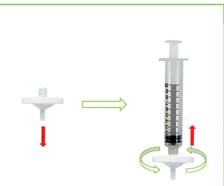
Thaw a dropper bottle of each reagent (EXTRACTANT, DENDRIDIAG® & STANDARD 1000) and bring them to room temperature (>18°C). Prepare the plastic consumables (extension tube, syringe, filter and test tube). Turn on the luminometer and select the «Standard mode» on the main menu.



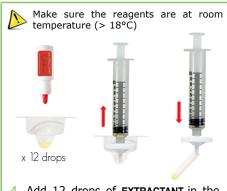
1. Open the plastic packaging of the filter and connect the filter's tip to the extention tube.



2. Connect the assembly on the vacuum pump. Filter at the maximum flowrate for 10 minutes (volume filtered = 70 liters).



3. Disconnect the extention tube from the filter. Suck up 4 ml of air in the syringe and screw the filter to the



4. Add 12 drops of **EXTRACTANT** in the plastic packaging. Suck up the reagent and push it through the filter in a tube.



5. Add 2 drops of **DENDRIDIAG®** in the test tube containing the **EXTRACTANT**. Homogenize correctly.



6. Place the tube in the luminometer. Press ENTER to start the analysis. Write down the result R1 (in RLU).



7. Take the tube out of the luminometer and add one drop of **STANDARD 1000**.



8. Place the tube in the luminometer. Press ENTER to start the analysis. Write down the result R2 (in RLU).



Standard = 
$$\frac{R2 - R1}{1000}$$

$$[ATP] = \frac{R1 \times 1000}{Standard \times V}$$

## With:

R1 (in RLU): result of the sample R2 (in RLU): result after standardization V (in liter): volume of air filtered



ATP concentration is given in picogram of ATP per m3 (pgATP/m3). It can be expressed in equivalent bacteria per m3 (eq.bact./m3) based on the following scientific consensus: 1 picogram ATP  $\approx$  1 000 bacteria. The result of these calculations can be automatically obtained by filling in the Excel table supplied.