



WHAT DOES ATP 2G

Quantitative ATP-metry is recommended for **current microbial risk monitoring** as a biological tool of water quality assessment.

It's a **Total Flora indicator**. It accounts for all living organisms present, isn't influenced by inorganic particulates, provides accurate bacteria counts, and detects bacteria considered to be unculturable. Adenosine triphosphate (ATP) is the energy source of any living organisms. ATP G2 analysis is an **effective tool in monitoring Microorganisms in water** and ATP testing detects **all metabolically active cells** in the sample. These kits are new alternative methods from culture plate counting, for more reactivity.

KEY BENEFITS

Microbial contamination monitoring enables to :

- Control microorganisms and microbial risks
- Ensure industrial products quality
- Immediately react by implementing corrective actions when microbial contamination is taking place
- Optimize and verify disinfection procedures
- Reduce biocides and waste water treatments costs
- Reduce environmental impacts by monitoring microorganisms in effluents and reducing biocides use

INVESTIGATION APPROACH

1. Using the quantitative ATP-metry **QGA™** kit, realise a biological audit of your network in order to identify critical zones (uncontrolled built-up biofilm, stagnation, clogging...).
2. Determine and localize immediate corrective actions and disinfection applied. Optimize the biocide quantity.
3. Regularly check microbial contamination on critical zones while processing to a complete biological audit using the **QGA™** kit in order to ensure the microbial safety of your installation.

TECHNOLOGY

ATP (Adenosine Triphosphate) is the main energy carrier for all living organisms. Thus, in measuring the concentration of ATP in living cells microbial contamination in water can be quantified. The **QGA™** kit technology – 2nd generation ATP-metry – enables measuring only intra-cellular ATP, to quantify living microorganisms in water in **3 minutes**. This value can be obtained through filtration of a sample and proceeding to lysis of the microorganisms retained on a filter to release their ATP. ATP, in contact with Luciferin and Luciferase, reacts to produce photons measured by a luminometer. An external **standard calibrated ATP solution, Ultracheck1**, allows providing reliable quantitative results. Final results are delivered either in pg ATP/ml or Equivalent Microorganisms/ml.

STRONG POINTS

- Quick measurement (**3 minutes**)
- Quantitative monitoring of microorganisms in water
- Fieldwork possible for more reactivity
- Quantification of all microorganisms
- Low priced analysis
- Results expressed in **pg ATP/ml** or **Equivalent Microorganisms/ ml**

CREATE YOUR MicrobialBoxTool

Reference method as culture plate count for water/fluid microbial control are directly link to the operator appreciation and quality of culture media used - variation of CFU count are more than 30 % for the same of culture media produced by different companies. This means that **you can underestimate true level of microorganisms** in your sample – Microorganisms slow growing or **injured active** cells will be missed by the operator. Underestimation of microbial contamination could lead you to unappropriated and non-efficiency action plans.

LUMINOMETER

