

# LumoStix<sup>0</sup>™ rapid toxicity screening kit

## Instruction manual

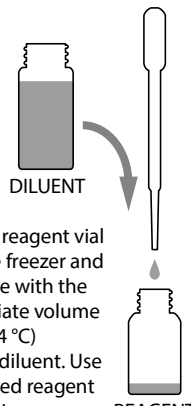
### Introduction

LumoStix™ rapid toxicity screening kit can be used to detect residues of cleaning products and chemical contamination in environmental samples. Samples can be taken directly off solid surfaces with the device

and measured with a portable luminometer. Toxic substances will inhibit the light emission of photo-bacterium in the reagent. Lower light output indicates toxicity in the sample.

### Procedure

**1**

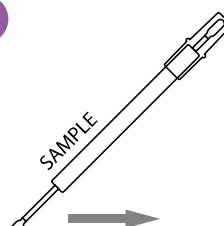


DILUENT

REAGENT

Remove reagent vial from the freezer and rehydrate with the appropriate volume of cold (4 °C) reagent diluent. Use rehydrated reagent within 4 hours.

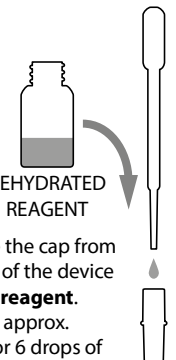
**2**



SAMPLE

Remove the cap from the end of the device marked **sample**. Use the swab to collect a direct contact sample. Replace the cap firmly.

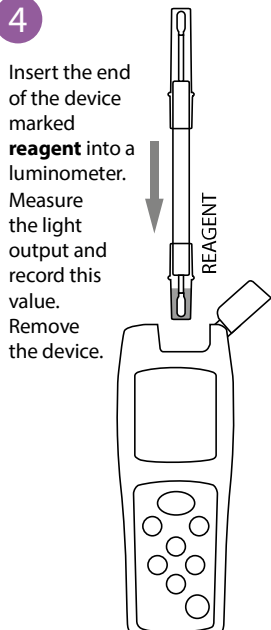
**3**



REHYDRATED REAGENT

Remove the cap from the end of the device marked **reagent**. Transfer approx. 300 µL or 6 drops of rehydrated reagent to the vial. Replace the cap firmly.

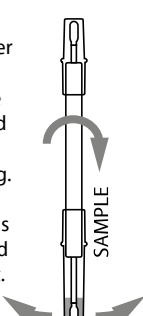
**4**



REAGENT

Insert the end of the device marked **reagent** into a luminometer. Measure the light output and record this value. Remove the device.

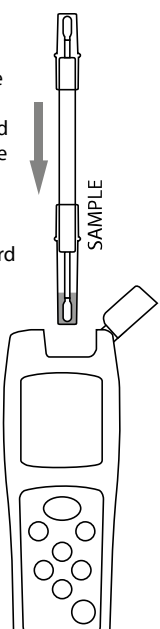
**5**



SAMPLE

Invert the device. Transfer reagent into the end of the device marked **sample** by gentle shaking. Ensure the sample swab is fully immersed in the reagent.

**6**



SAMPLE

Measure the light output from the end of the device marked **sample**. Record this value. Discard the device with laboratory waste.

**7**

The result (sample light output vs. reagent control) is calculated with the following formula:

$$\frac{RLU (\text{SAMPLE})}{RLU (\text{CONTROL})} \times 100 \%$$

If the result is below 50 %, the sample contains chemicals that inhibit the light output of the test reagent.

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### Kit content

1 vial of diluent  
5 vials of reagent  
20 LumoStix™ devices

### References

Lappalainen, J., Loikkanen, S., Havana, M., Karp, M., Sjöberg, A.-M. and Wirtanen, G. (2000). Microbial Testing Methods for Detection of Residual Cleaning Agents and Disinfectants-Prevention of ATP Bioluminescence Measurement Errors in the Food Industry. J. Food Prot., Vol. 63, No. 2, pp. 210-215.pp. 210-215.

# ABOATOX

Manufactured by Aboatox Oy, Masku, Finland  
[www.aboatox.com](http://www.aboatox.com)