

Microbiological Analysis of Bathing Water

(Swimming pools, paddling pools, water games, spas, lakes, etc.)

Have your recreational waters tested with confidence

Do you want to check the microbiological quality of your aquatic facilities?

Contact the AGAT Laboratories customer service team.

We will provide you with the sterile containers needed to take the samples yourself, and then we will analyze the samples in the laboratory.

You will be given a certificate of analysis with your results. If the standards are exceeded, you will be notified promptly.

Collection Procedure

Proper sampling is essential to ensure reliable results. Here are the guidelines to follow:

Before collection

- Always use the **sterile containers provided by AGAT**.
- **Do not rinse** the containers: they contain **sodium thiosulfate**, a preservative that neutralizes disinfectants.
- Store sampling equipment in a clean, **well-ventilated area**.

During collection

- Plunge the container in **one movement**, towards the bottom, **at a 45° angle**.
- Leave an **air space of at least 2.5 cm** between the liquid and the stopper.
- First, take **microbiological** samples, then chemical samples (if required).
- Adhere to aseptic conditions:
 - Do not touch the inside of the container or the cap.
 - Close immediately after collection.

After collection

- Seal containers tightly.
- Cool samples if possible (especially in summer).
- *Use ice packs for transport.
- **Do not freeze** samples: they will not be analyzed if frozen.
- Ship promptly, ideally within **48 hours**.
- Package samples securely to prevent breakage or spillage.
- Complete **submission forms** correctly.

When and where to collect?

- **Time:** During opening hours
- **Depth:** Between **15 and 30 cm below the surface**, or halfway if the depth is <30 cm.
- **Location :**
 - In an area **rarely visited by bathers**
 - Between the outlet of the **filtration system** and the **return point**
 - For spas and whirlpools: any point below the surface

Analyzed parameters and microbiological standards

Setting – Pools and spas	Maximum standard
Thermotolerant (fecal) coliforms	< 1 UFC/100 mL
Escherichia coli	< 1 UFC/100 mL
Pseudomonas aeruginosa	< 1 UFC/100 mL
Staphylococcus aureus	< 30 UFC/100 mL

Parameter – Outdoor pools	Maximum standard	Water quality
	0 - 20 UFC/100 mL	Excellent - All recreational uses permitted
	21 - 100 UFC/100 mL	Good - All recreational uses permitted
Thermotolerant (fecal) coliforms	101 - 200 UFC/100 mL	Poor - All recreational uses permitted
	> 200 UFC/100 mL	Bad - Swimming and other direct contact with water compromised
	>1000 UFC/100 mL	Very poor - All recreational uses compromised

Recommended frequency of analyzes

Basin type	Frequency
Indoor pools	Once a month
Outdoor pools	1 to 2 times a week

Regulatory references

- *Regulations Respecting the Water Quality of Swimming Pools and Other Artificial Pools*
- *Sampling and Analysis Methods – Quebec Ministry of the Environment*
- *Swimming Pool and Wading Pool Operating Guide – Quebec Municipal Recreation Association*

For more information or to schedule a sampling campaign, contact us:

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