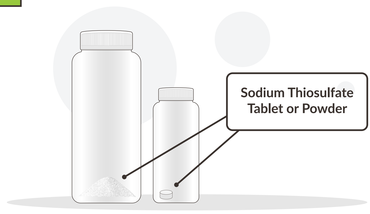
Legionella Sample Collection and Shipping Procedures: A Step-by-Step Guide

Preparation and Safety

1 Personal Safety Precautions

Prioritize safety by wearing a respirator with a HEPA cartridge, goggles, and nitrile gloves to prevent exposure to potentially contaminated aerosols.

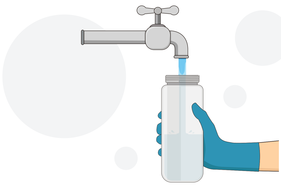
2 Sample Collection Bottles



Use sterile, screw-capped plastic bottles pre-treated with sodium thiosulfate to neutralize chlorine, preventing the degradation of Legionella bacteria.

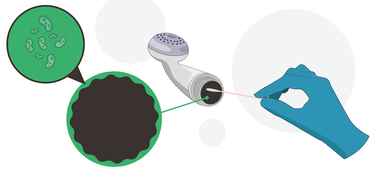
Sample Collection

3 Water System Sampling



For potable water systems, collect a 1-liter "pre-flush" sample from taps and showers, capturing the first water released to assess outlet-specific contamination.

4 Swab Sampling for Biofilms



Take swab samples from faucet aerators, inside faucets, showerheads, and other areas likely to harbor biofilms, especially in non-potable systems like cooling towers or whirlpool spas.

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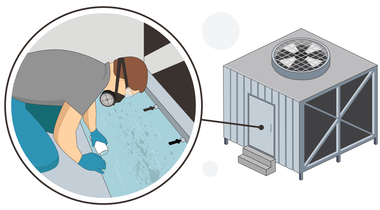

Collection from Non-Potable Sources

Gather 250 ml samples from sources such as cooling towers, chillers, or surface waters. Focus on areas with visible biofilm or at the bottom of reservoirs.

Labeling and Documentation

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Labeling Samples

Each sample must be clearly labeled with a unique identifier. Record detailed information on the sample data sheet, including the sample location and biocides used.

Packaging and Shipping

7 Securing Samples for Transport

Tightly cap all bottles to prevent leakage. Place samples in insulated boxes with freezer packs to maintain temperature. Do not use ice or dry ice.

8 Sending Samples

Send samples via overnight express to ensure they reach the lab promptly, avoiding weekends and holidays to prevent sample degradation.

Additional Notes

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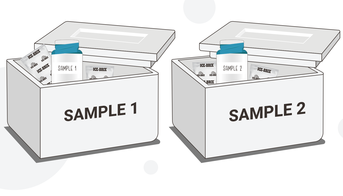

Multiple Samples Handling

If submitting multiple samples, ensure each is individually packaged and clearly labeled to prevent cross-contamination.