



**BUREAU
VERITAS**

HOW DOES A SAMPLE'S TEMPERATURE IMPACT ITS INTEGRITY?

Canadian guidance and regulation generally states that samples should arrive at the laboratory at $<10^{\circ}\text{C}$. Using specific chemical preservatives and cooling samples will help ensure that the chemical composition of samples stays the same between sampling and analysis. When samples are not cooled sufficiently, it exposes a risk of biasing sample results.

Amidst high summer temperatures, it is crucial to ensure you have sufficient ice and coolers ahead of time and to cool samples immediately after sampling.

TIPS ON COOLING SAMPLES

1. Follow our [sampling instructions](#) for packing coolers.
2. Use bagged loose ice instead of ice packs. Ice packs do not have sufficient cooling power.
3. Put loose ice in sealed bags and store bought bags of ice in sealed garbage bags. This helps prevent free water in the coolers.
4. Ice should fill at least 1/3 of your cooler, especially in hot summer months.
5. Put samples on ice as soon as they are collected. If they are not being shipped or submitted immediately, pre-cool them in a fridge prior to packing.
6. Put sample containers in sealed bags so labels aren't damaged from melted ice or condensation.
7. Separate "same day" samples from previously collected samples. This will maintain the lower temperature of the previous samples and will ensure accurate readings.
8. Ship samples earlier in the week to avoid courier delays on the weekend.
9. See [additional tips](#) on packing coolers.