



# Keeping Samples Cool in the Arizona Heat

To ensure the accurate analysis of a sample, precautions must be taken to keep samples within a certain temperature range-especially in Arizona summertime.

## Standard Methods require:

- Microbiological samples to be received at temperatures between 2° - 10° C.
- Chemical samples to be received at temperatures between 2° - 6° C.

If less than two hours pass between sampling and submittal to the laboratory, the temperature requirements do not apply.

Metals samples preserved with nitric acid, including radiochemicals, do not need to be kept cool.

## How to cool your samples:



- Use wet ice in a cooler.
  - The type of ice you'd put in your drink.
  - Do not use blue ice or ice packs. These will not keep your samples cold enough.
  - When submitting, put the chain-of-custody in a zipper bag so that it isn't wet for the laboratory.



- Use a temperature blank.
  - A temperature blank is a small plastic bottle filled with tap water that acts as a fair representative temperature for the samples upon laboratory receipt.
  - If your lab doesn't provide a temperature blank, you can make your own. **IMPORTANT:** Clearly write "TEMPERATURE BLANK" on the bottle so the lab doesn't confuse it for a sample.
  - Bury the temperature blank in the ice cooler with the samples.



- Use a Styrofoam cooler if more insulation is needed.



- If you are shipping the samples, make sure to use a plastic bag to line the cooler **before** adding the ice and samples. This is important, because if your cooler or package leaks, the shipping company will hold it to ensure there are no hazardous materials. This could result in your samples expiring, which would require you to collect samples all over again.