Environmental Division

AGAT Laboratories

Tips for Packing Your Sample Cooler

Here are 8 cooler packing tips to help you protect your samples from damage and maintain sample temperatures within the regulatory required range of 10° Celsius or below.

1. **Natural ice is the best choice** for keeping samples cold.
2. **Ice should take up at least three quarters of the space in your cooler.**
   ****When in doubt, use more ice; this is more cost-effective than resampling.*
3. **Never use dry ice** when packing your cooler! Not only is it a safety hazard, it will freeze your samples solid, compromising sample integrity and possibly shattering your containers.
4. **Seal each container tightly or in water-tight plastic bags** (preferably bubble bags) to prevent water from getting onto the sample and degrading the label.
5. **Use bubble bags or bubble wrap!** They are the ideal packing material for glass containers, and the trapped air provides additional insulation to help keep samples cold and offer a cushioning effect.
6. **Isolate each sample container** with non-absorbent packing material. Glass containers in direct contact with one another are almost certain to break. Do not stack glass containers or lay them on their sides.
7. **Pre-chill the sample,** if above ambient temperature when collected, place in an ice bath for a few minutes before packing. This saves your cooler ice from having to both lower the sample temperature as well as keep it cold.
8. **Use an AGAT cooler;** these are chosen and provided due to their insulation specifications.

***Reference the "Sample Integrity" document for further tips on how to avoid flags when sampling.*