

# SmartNotes

QA

**Highlighting the innovative design features and useful applications for Thermo Scientific™ Nalgene™ PC Biotainer™ bottles and carboys**

Why should I store my active pharmaceutical intermediate (API), bulk drug products and other critical reagents in a polycarbonate container versus a glass container?

While glass has been traditionally used to store materials for drug and vaccine production, presterilized, single-use containers in crystal-clear polycarbonate (PC) are recognized as a much safer alternative. PC containers maintain the visibility and integrity of the contents like glass containers do, but PC enables cold storage down to  $-130^{\circ}\text{C}$ , with a fracture resistance that glass cannot offer.



## Why are PC containers good for storing critical materials?

### Safer handling

If glass breaks, the resulting shards are dangerous. If a PC container breaks, the bottles may crack, but there is less danger to the handler, since the container will not shatter into sharp shards.

### Single-use advantages

There is no need to perform washing validations, testing of washed products, or other types of processing that are associated with glass and that introduce more costs. Furthermore, a slight break in glass could compromise the contents with fragments of glass, even without leaking. A slight break in a PC container may result in visual defects, but the contents can still be transferred to another container without the loss or contamination of valuable material.

### Ergonomic advantages

Plastics such as PC are much lighter than glass, making routine handling less likely to cause injury. Larger containers with molded-in handles or handles attached at the neck aid in gripping, pouring, and transport as well.

### Summary

Nalgene Biotainer bottles and carboys are a safer alternative to glass that can also offer higher cost savings when storing critical drug reagents, APIs, and bulk products.



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