



# Probiotic Stability Solutions

Unmatched protection to ensure strain viability and extend probiotic shelf life

Your product, actively protected™

**Aptar**   
CSP Technologies

# Active Packaging Solutions for Probiotic Stability

Unparalleled protection to adsorb moisture and extend shelf life

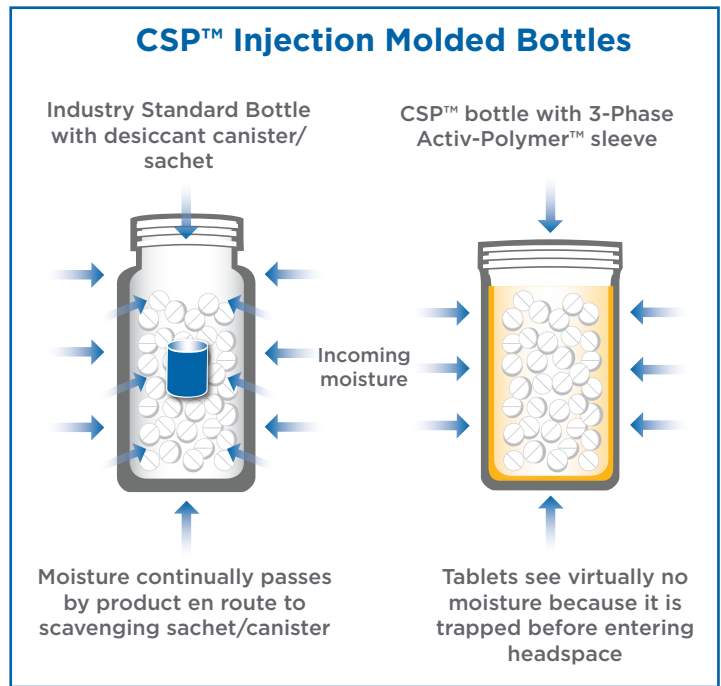
Aptar CSP Technologies offers advanced packaging solutions for probiotic product protection to ensure product stability, extend the shelf life of probiotics, and enhance branding for greater competitive differentiation. Our 3-Phase Activ-Polymer™ platform technology can be deployed in multiple formats, offering you premium packaging solutions to protect your high-value probiotic product.

CSP™ bottles and vials feature a 3-Phase Activ-Polymer™ sleeve that completely surrounds the product and scavenges moisture, ensuring greater product stability and potency over traditional bottles using a desiccant canister or sachet.

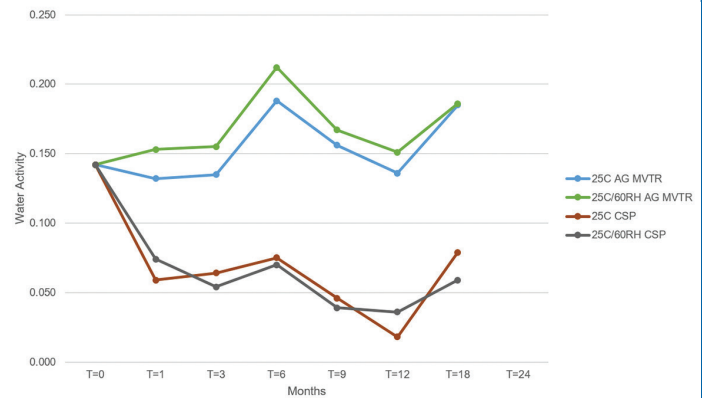
For blister pack, stick pack, and foil pouch packaging options, our Activ-Film™ material is custom-engineered to adsorb moisture and can be applied onto the primary packaging material on your current production line to protect your product without disrupting your process.

## Benefits

- Shelf life extension = enhanced stability and efficacy**  
 Unparalleled protection to adsorb moisture allows you to take your product out of the refrigerator and extend shelf life performance over traditional packaging options.
- Expanded formulation development opportunities**  
 Enables unique combinations of ingredients that aren't feasible in solutions that provide less protection.
- Enhanced viability of cultures = cost reduction through reduced overage and higher margins**  
 CSP packaging maintains the viability of cultures and can enable brands to reduce overage levels typically required to meet end-of-shelf-life label claims.
- Proven expertise with probiotics**  
 Aptar CSP Technologies is a leader in delivering innovative, high-quality product and packaging solutions that give customers a competitive edge and consumers a better product experience. Major global brands rely on CSP as a trusted sole source supplier and continue to reinvest with CSP on next generation products.



### Water Activity in Probiotics + Cranberry Capsules (CSP vs. Amber Glass with Desiccant)



### Potency of Probiotics + Cranberry Capsules (CSP vs. Amber Glass with Desiccant)

