

NutriCulture DMSO (Dimethyl Sulfoxide), Sterile

Troubleshooting Guide

50 mL, 100 mL, 5 x 50 mL, 5 x 100 mL

Cat No: DMSO50, DMSO100, DMSO505, DMSO1005

Use this guide for source-supported handling and application checks for sterile DMSO. The datasheet describes DMSO as a colorless polar aprotic solvent, miscible with water and many organic solvents, used as a PCR co-solvent to help inhibit DNA secondary structure and as a cryoprotectant for cells, tissues, and organs. The datasheet does not specify application-specific working concentrations.

Before You Start - Quick Checks

1. Store at room temperature; the datasheet states 24-month stability.
2. Verify that the sterile cell-culture reagent is the intended DMSO product.
3. DMSO is miscible with water and many organic solvents.
4. For PCR, the datasheet describes DMSO as a co-solvent for reducing DNA secondary-structure effects.
5. For cryopreservation, the datasheet describes DMSO as a cryoprotectant that helps prevent ice-crystal formation.
6. The datasheet does not provide a universal PCR or cryopreservation working concentration.

Problem	Most likely cause	Recommended action
Product was stored refrigerated or frozen	The storage condition may not match the datasheet.	Store the product at room temperature as specified.
Product age is uncertain	The bottle may be beyond the stated stability period.	Check the manufacturing/expiry information against the datasheet statement of 24-month stability at room temperature.
A PCR protocol requires DMSO but the working concentration is unclear	The datasheet describes the application but does not specify a universal concentration.	Use the concentration defined by the validated PCR protocol; do not infer a concentration from this datasheet.
Secondary-structure-related PCR difficulty persists	The PCR may require application-specific optimization beyond the general role described in the datasheet.	Confirm that DMSO is being used according to the validated assay protocol. The datasheet only states its role as a co-solvent that can help inhibit DNA secondary-structure formation.
Cryopreservation protocol requires a DMSO percentage	The datasheet describes cryoprotective use but does not provide a universal percentage.	Follow the validated cryopreservation protocol for the specific cells, tissues, or organs; do not derive the concentration from this datasheet.
DMSO is expected to be an aqueous buffer	The product may be misunderstood as a water-based reagent.	The datasheet describes DMSO as a polar aprotic organic solvent that is miscible with water and many organic solvents.
Application performance is questioned despite correct storage	The issue may depend on application-specific conditions not defined in this datasheet.	Verify room-temperature storage and product identity, then troubleshoot the PCR or cryopreservation protocol using its own validated conditions.

Still having trouble? Confirm room-temperature storage and the intended application. This datasheet supports DMSO use as a PCR co-solvent and cryoprotectant but does not specify a universal working concentration, so concentration-dependent troubleshooting must follow the validated application protocol.