

## ClearBand 20% SDS Troubleshooting Guide

100 ml, 500 ml

Cat No: S100/20, S500/20

Use this guide for common handling and application problems with ClearBand 20% SDS. The product is a 20% w/v sodium dodecyl sulfate solution prepared in 18 MOhm water for protein denaturation, especially in polyacrylamide gel electrophoresis workflows.

### Before You Start - Quick Checks

1. Store at room temperature and do not store the solution below 15°C.
2. If precipitate forms, incubate at 50°C with occasional mixing until completely dissolved.
3. Confirm that the stock concentration is accounted for correctly when preparing the working solution or downstream buffer.
4. Use only after the solution is fully homogeneous.

| Problem                                                | Most likely cause                                                                                               | Recommended action                                                                                                                                    |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>White precipitate or crystals are visible</b>       | The SDS solution may have been exposed to temperatures below the recommended range.                             | Incubate the solution at 50°C with occasional mixing until the precipitate is completely dissolved.                                                   |
| <b>Solution remains cloudy after warming</b>           | The precipitated SDS may not yet be completely redissolved.                                                     | Continue incubation at 50°C with occasional mixing and use only after the solution is homogeneous.                                                    |
| <b>Precipitation recurs during storage</b>             | The solution may be stored below 15°C.                                                                          | Return the product to room-temperature storage and avoid storage below 15°C.                                                                          |
| <b>Prepared buffer has the wrong SDS concentration</b> | The stock percentage may have been entered incorrectly in the dilution calculation.                             | Recalculate the required volume using the labeled stock concentration and prepare a fresh working solution.                                           |
| <b>Protein denaturation is inconsistent</b>            | The SDS-containing working solution may have been prepared from a non-homogeneous or incorrectly diluted stock. | Fully dissolve any precipitate first and verify the dilution used for the final buffer or sample formulation.                                         |
| <b>Results change between preparations</b>             | Different aliquots may have been used before the stock was fully homogeneous or dilution volumes may vary.      | Mix the stock after complete dissolution and standardize the dilution procedure between preparations.                                                 |
| <b>Unexpected material is seen in the solution</b>     | The appearance may not be due to the temperature-dependent SDS precipitation described in the datasheet.        | First apply the specified 50°C dissolution step. If material remains after complete warming and mixing, do not assume it is normal SDS precipitation. |
| <b>Stock was accidentally refrigerated</b>             | The product was kept below the datasheet storage recommendation.                                                | Warm to 50°C with occasional mixing until any precipitate dissolves completely, then return to room-temperature storage.                              |

Still having trouble? Confirm room-temperature storage above 15°C, complete dissolution of any precipitate at 50°C, and the dilution calculated from the 20% w/v stock before repeating the experiment.