

Preparation of 6M (40%) Glyoxal

Glyoxal is a hazardous (reactive) chemical that should be handled with care.

Glyoxal readily oxidizes in air; the pH will drop as carboxylic acids accumulate. These can be removed by passage through a mixed-bed resin as indicated below. This must be done quickly to minimize exposure of the glyoxal to air.

1. In a 50 ml tube, fill 2/3 with glyoxal and 1/3 with Bio-Rad AG 501-X8 (or X8D) resin. Cap and mix.
2. Wait 5 min.
3. Take pH using plastic strips. If pH is 5.0 to 5.5, proceed to step 4. Otherwise, transfer the glyoxal to a new tube (decant or use a pipette), and add more resin. Repeat this until the pH is 5.0 to 5.5.

The quality of the original glyoxal will influence the number of cycles of resin addition required.

4. Once the pH is 5.0 to 5.5, the glyoxal can now be stored. Aliquot into 0.5 ml tubes (100 μ l is recommended), cap tightly, and store at -80°C .