Glutaraldehyde solution

Product Number G7651
Storage Temperature -0 °C

**Product Description**
Molecular Formula: C₅H₈O₂
Molecular Weight: 100.1
CAS Number: 111-30-8

This product is a 50% (w/w) solution assayed by titration.

The use of glutaraldehyde as a cross-linking reagent has been reported. Instructions were given for the cross-linking of Ascaris hemoglobin with glutaraldehyde (same as glutaraldehyde). The cross-linking was carried out at 20 °C in 0.01 M sodium phosphate buffer, pH 7.0, the protein concentration was 2 mg/ml, and the glutaraldehyde concentration was 0.09% (by volume).

Attached cells may be fixed in a 1% glutaraldehyde solution in PBS with an hour incubation at room temperature.

Extensive information about properties of glutaraldehyde and usage in sterilization has been reported.

The mechanism of the reaction with nucleosides or proteins is discussed. The term "2% activated glutaraldehyde" was used noting "age of solutions 18 hours". Two to three hours of exposure to the 2% solution was required to kill *B. subtilis*, *C. tetani* or *C. perfringens* (examples for sporicidal activity). It is suggested that glutaraldehyde is most effective at pH 8-8.5 than at acid pH. Alkaline solutions are also more stable.

Using glutaraldehyde, tissues are usually fixed by one of two methods. The simpler is immersion. Blocks of tissue about 1 mm³ are cut and simply immersed in the fixative for whatever time may be required. Problems of diffusion may be overcome using perfusion fixation. With animal tissue, vasculature is first washed out with heparinized saline to remove blood. Formaldehyde or glutaraldehyde is then run in. This gives much more even fixation.

**Precautions and Disclaimer**
For Laboratory Use Only. Not for drug, household or other uses.

**References**

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