Catachem Ethylene Glycol Method

Intended Use

For IN VITRO diagnostic use in the automated, quantitative, determination of Ethylene Glycol in serum or plasma.

Method Principle

Catachem Ethylene Glycol procedure is based on the affinity of the enzyme Glycerol Dehydrogenase (EC 1.1.1.6.) from bacteria to catalyze the oxidation-reduction reaction of Ethylene Glycol in the presence of NAD. This two point kinetic procedure is read at 340 nm and the increase in absorbance is directly proportional to the concentration of Ethylene Glycol in the serum sample.

Reagent Storage And Stability

The Ethylene Glycol Liquid/Powder Reagents are stored at 2-8°C. When stored as directed, these reagents are stable until the expiration date stated on the label. The Ethylene Glycol Working Reagent (liquid) is stored at 2-8°C. When prepared and stored as directed, the Ethylene Glycol Working Reagent is stable for sixty (60) days. Diethylene Glycol has no significant effect on the accuracy of this Ethylene Glycol procedure up to a concentration of 100 mM.

Working Reagent Preparation

Prepare Catachem Ethylene Glycol Working Reagent by combining Sample Diluent Reagent-R1 (Enzyme Reagent) with the Activator Reagent-R2 (Cofactor).

Method Performance Characteristics

Sensitivity: Using a pathlength of 1 cm, a D-absorbance of 0.01-0.015 per mmol/L should be obtained. **Linearity:** This procedure is linear over the range of 0-50 mmol/L.

Ethylene Glycol	Within-Run Precision		Total Precision	
MEAN	SD	CV	SD	CV
mmol/L	mmol/L	%	mmol/L	%
1.0	0.0	0	0.0	*
25.0	0.471	1.87	0.63	2.49
41.0	0.422	1.02	1.55	3.51