



CATACHEM

ETHYLENE GLYCOL POISONING

PRODUCT / SERVICE INFORMATION

Catachem, Inc. Introduces the Ethylene Glycol In-Vitro Diagnostic (IVD) Chemistry Reagent Kit.

Catachem introduces the VetSpec™ Ethylene Glycol In-Vitro Diagnostic Chemistry reagent test kit. This is the only automated Ethylene Glycol procedure currently available helping veterinarians quickly identify toxicity and determine if immediate treatment is needed. These reagents have been uniquely formulated to provide fast and accurate quantitative results without the interference from glycerol, triglycerides, hemoglobin, or bilirubin.

An important toxicological problem in clinical diagnosis is Ethylene Glycol poisoning. When ingested in the form of antifreeze or other automotive products, Ethylene Glycol results in central nervous system depression, cardiopulmonary compromise, and renal insufficiency. Laboratory features of Ethylene Glycol poisoning include increase anion gap, and increased osmolal gap, calcium oxalate crystaluria, and detectable Ethylene Glycol in serum.

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 340nm and the increase in absorbance is directly proportional to the concentration of Ethylene Glycol in the serum sample.

Interfering Substances

The following substances have no significant effect on the accuracy of this Ethylene Glycol procedure at the concentrations stated.

Glycerol	≤ 47 mg/dl
Hemoglobin	≤ 200 mg/dl
Triglycerides	≤ 1000 mg/dl
Bilirubin	≤ 2.2 mg/dl

Other substances and certain drugs are also known to influence the Ethylene Glycol values (1-2).

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.

Precision: Precision data was obtained using five levels of protein based controls and following the NCCLS EP5-T2 procedure.

ETHYLENE GLYCOL ASSAY COMPARISON OF REACTION CURVES BETWEEN ETHYLENE GLYCOL AND PROPYLENE GLYCOL

