

A simple, rapid and direct enzymatic analysis for glycerol in a wide variety of aqueous fluids including beverage, pharmaceutical and fermentation products and processes.

Bulletin Reference	TB – USA – Glycerol – Industrial – GMRD-185– V.01
Order Code(s)	GMRD-185
Reagent Kit Size(s)	100 ml (140 analyzer cycles)
Instruments	All GL6 and GM8 Series Analyzers
Samples	Beverages, pharmaceuticals, fermentation extracts
Sample Volume	7 µl
Analysis Time	20 - 25 seconds
Working Range	0.1 - 4.0 % W/V (1.0 - 40.0 g/L)
Reagent Stability	Shelf-life unopened: 12 months stored at 0 - 5°C. Shelf-life reconstituted: 3 - 4 weeks stored at 0 - 5°C.
Note	The Kit insert contains instructions on how to use this assay for both low level (<0.1 % W/V) and high level (up to 8.0 % W/V) concentrations of Glycerol.

Principle

In the presence of glycerol kinase (GK), glycerol is phosphorylated by adenosine triphosphate (ATP) forming glycerol-3-phosphate (G-3-P) which in turn is oxidised by glycerol-3-phosphate oxidase (GPO) to dihydroxyacetone phosphate (DAP) and hydrogen peroxide,



Under the conditions of the assay, both reactions run concurrently in the reaction chamber and the rate of oxygen consumption is directly proportional to glycerol concentration.