

A simple and rapid enzymatic analysis for ammonia in a variety of biological fluids, e.g. in monitoring and control of culture media and fermentation processes in biotechnology industries.

Bulletin Reference	TB – USA – Ammonia – Industrial – GMRD-152 – V.01
Order Code(s)	GMRD-152
Reagent Kit Size(s)	100 ml (140 analyzer cycles)
Instruments	All GM8 series analyzers
Samples	Aqueous solutions (pH 5 - 7), culture fluid, etc.
Sample Volume	25 µl
Analysis Time	20 seconds (from injection)
Working Range	0.5 - 20.0 mmol/L (ca. 1 - 34 mg/dL) (ca. 0.01 - 0.34 g/L)
Reagent Stability	Shelf-life unopened: 12 months stored at 0 - 5°C. Shelf-life reconstituted: NADH/α-ketoglutarate, 7 - 10 days stored at 0 - 5°C.
Note	2 vials of enzyme reagent are provided to maximize kit life. A sample blank allows for interference by endogenous NADH consuming reactions.

Principle

i) Ammonia forms L-glutamate with α-ketoglutarate in the presence of glutamate dehydrogenase (GLDH) and excess NADH in a brief pre-reaction,



ii) Under the conditions of the assay, the rate of oxidation of excess NADH by peroxidase (POD) is inversely proportional to ammonia concentration.

