

NOTE NO. 31 - May 1 1989

pH STABILITY OF GFF ISRP PACKING

Analytes: Phenobarbital (160 µg/ml), Carbamazepine (60 µg/ml)

Sample Matrix: Water

Sample Size: 10 microliters

Column: 5 micron GFF ISRP, 5 cm x 4.6 mm ID

Regis Product Number: 731450

Mobile Phase: 85% 0.1 M KH₂PO₄ (pH 7.5 and 2.5), 15% Acetonitrile

Results:

Chromatogram #	I	II
pH	7.5	2.5
Efficiency (plates/meter)	31,700	30,100
Capacity Factor	1.40	1.92

Comments: The question as to the pH range of ISRP GFF packing has been asked numerous times. Here we illustrate the answer to that question. Proteins must not be denatured--precipitated--on injection into ISRP GFF columns. That precaution underlies most of the Care-and-Use restrictions on allowable mobile phase compositions. Otherwise, GFF Pinkerton ISRP packings are as stable to the normal ranges of mobile phase composition, specifically to pH's from 2.5 to 7.5, as any other silica-based packings. Once the serum proteins have been washed from the column, the Care-and-Use restrictions do not apply.



Detection: 254 nm, 0.2 AUFS

Flow Rate: 0.6 ml/min

Note: Sample filtered through 0.2 µm membrane prior to direct injection

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