PICKERING LABORATORIES

GUARANTEED CHEMISTRY APPROVED

2.1 mm ID Micro Carbamates Column

Ideal for LC-MS Confirmation

Post-column derivatization of carbamates with hydroxide and OPA is the method of choice for the detection of carbamates because of its high selectivity and high sensitivity (US EPA 531.1 & AOAC 985.23).

To confirm the finding of carbamates in the tested samples, there are various possibilitites:

1) Alternate columns to give different retention time or order of elution.
2) Fluorescence scan of the isoindole end-products.
3) Mass-spectrum of the carbamates.

Options 1 & 2 are already available to many Pickering customers. For option 3, the resolution of the carbamates has always been an issue with the necessary smaller ID column. The new 2.1 mm ID Pickering Carbamates Column provides the resolution. Because the new column contains the same durable phase as our regular Carbamates Column, it will have minimum leaching (critical for the mass spectrometer).

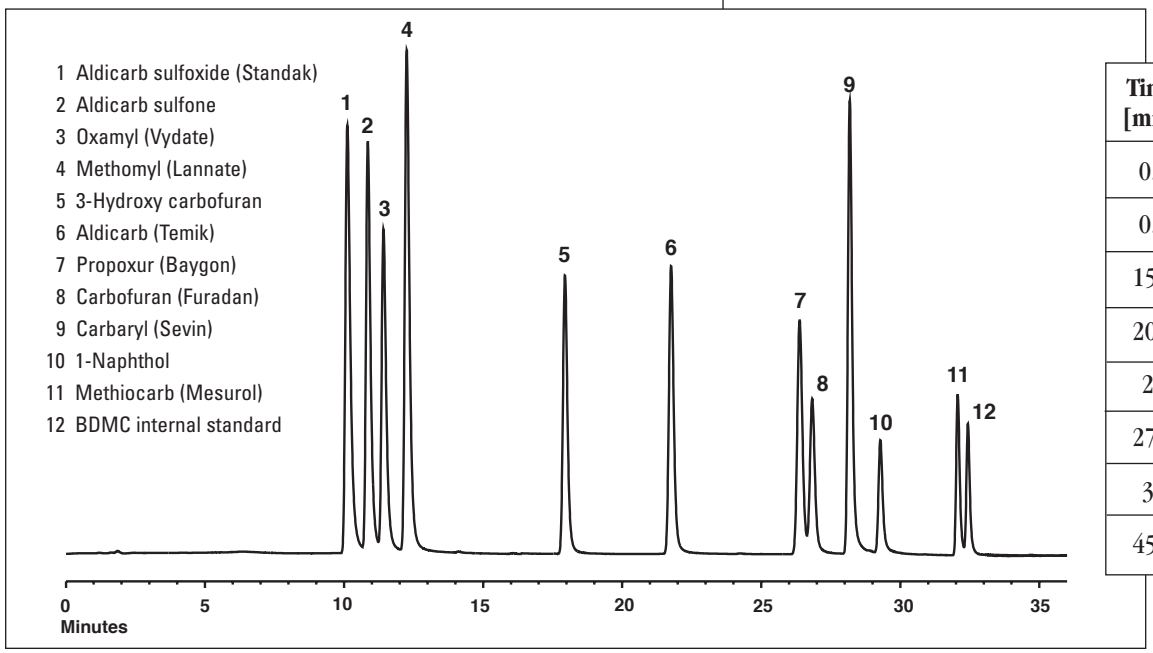
METHOD

Analytical Conditions

COLUMN: 2.1 x 100 mm Carbamates Column
Catalog No. 1821100
TEMPERATURE: 42 °C
FLOW RATE: 0.2 mL/min
MOBILE PHASE: A=H2O; B=MeOH

Post-column Conditions

POST-COLUMN SYSTEM: Pinnacle PCX or Vector PCX
REAGENT 1: CB 130
REACTOR 1: 100 µL, 100 °C
REAGENT 2: OPA, Thiofluor in CB 910
REACTOR 2: 20 µL, Ambient
FLOW RATE: 60 µL/min
DETECTION: Fluorometer
λ_{ex}: 330 nm
λ_{em}: 464 nm



Time [min]	A [%]	B [%]
0.0	100	0
0.1	88	12
15.0	60	40
20.0	55.5	44.5
27	20	80
27.1	0	100
33	0	100
45.1	88	12

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