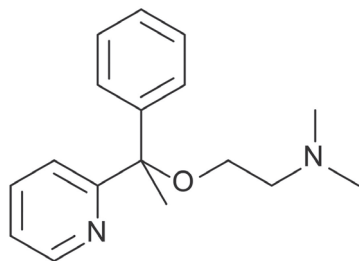
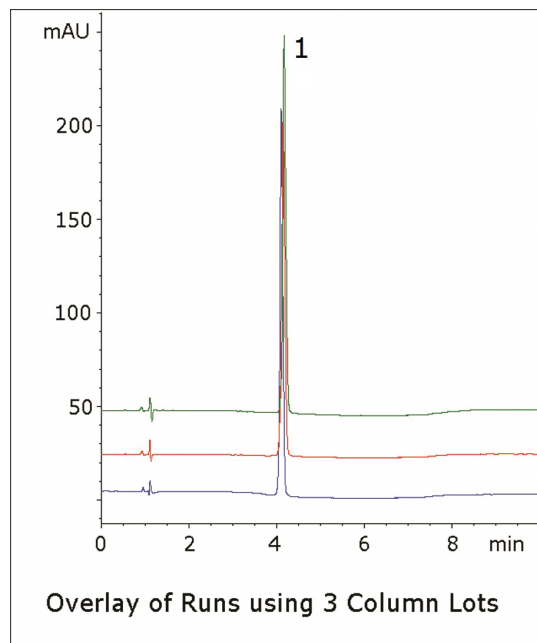


Doxylamine Succinate Tablet

Short run times replace USP method



Doxylamine

Note: Doxylamine is an antihistamine with sedative properties. It is used to treat insomnia and as a sleep aid for this reason. It is found in many common over-the-counter drug formulations.

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75 mm

Solvent: A: DI H₂O / 0.1% trifluoroacetic acid
B: Acetonitrile / 0.1% trifluoroacetic acid

Gradient:	time (min.)	%B
	0	95
	1	95
	6	50
	7	95

Injection vol.: 2µL

Flow rate: 1.0 mL/min

Detection: 254 nm

Sample: 25mg strength doxylamine succinate tablet was ground and added to a 50mL volumetric flask containing a portion of 50/50 solvent A/solvent B diluent. It was then sonicated 10 min and diluted to mark. Then a portion was filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.).

Peak: 1. Doxylamine

t₀: 0.9 min

Discussion

The USP assay method for doxylamine succinate tablets uses triethylamine and sodium lauryl sulfate in the mobile phase. These reagents are slow to fully load onto the column, resulting in long run times and poor robustness. This method using the Cogent Diamond Hydride column uses trifluoroacetic acid to get an excellent peak shape. An overlay of injections from three different lots is shown in order to illustrate the reproducibility of the Cogent Diamond Hydride material.