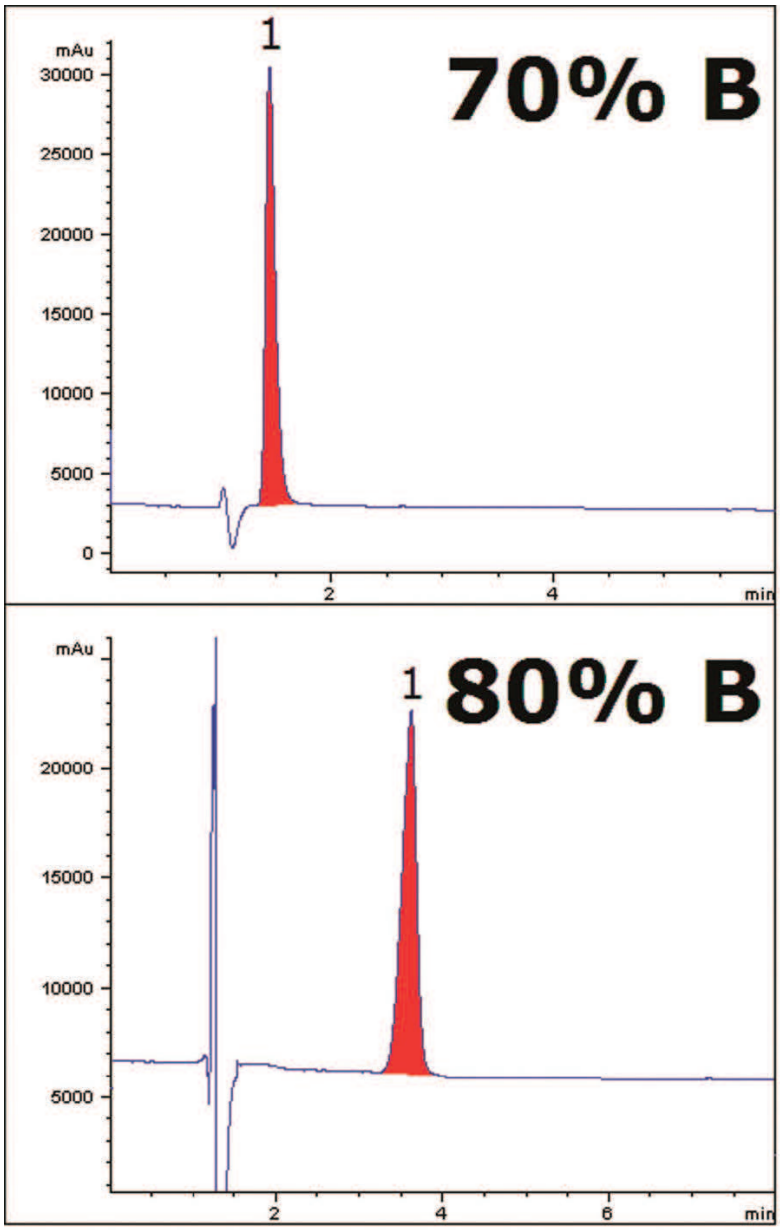
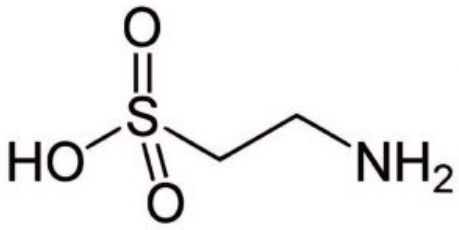
Taurine with HPLC & Refractive Index – AppNote

Retention of Highly Polar Compound

The food and beverage industry may need reliable methods for assay for Taurine in their products. However, its analysis is complicated by the lack of chromophores in its structure. LC-MS can be used instead, but many QC labs may not have this instrumentation or might prefer a more simple detection method for routine assays. Here, simple isocratic methods are shown for retention of a Taurine standard.

The increased retention at higher organic content in the Mobile Phase illustrates the chromatographic behavior of the Cogent Diamond Hydride Column for retention of Polar compounds. As a highly Polar compound, Taurine can be difficult to retain by conventional Reversed Phase methods.





Peak:

Taurine

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Flow rate: 1.0 mL/minute

Detection: Refractive Index

Injection vol.: 4µL

Sample Preparation: 8 mg/mL Taurine reference standard in diluent of 80/20 solvent A / solvent B.

t_0: 0.9 minutes

Note: *Taurine is added to many popular energy drinks today. It is found naturally in animal tissues and is a major constituent of bile.*

Attachment

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