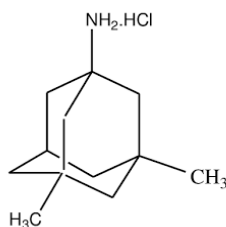
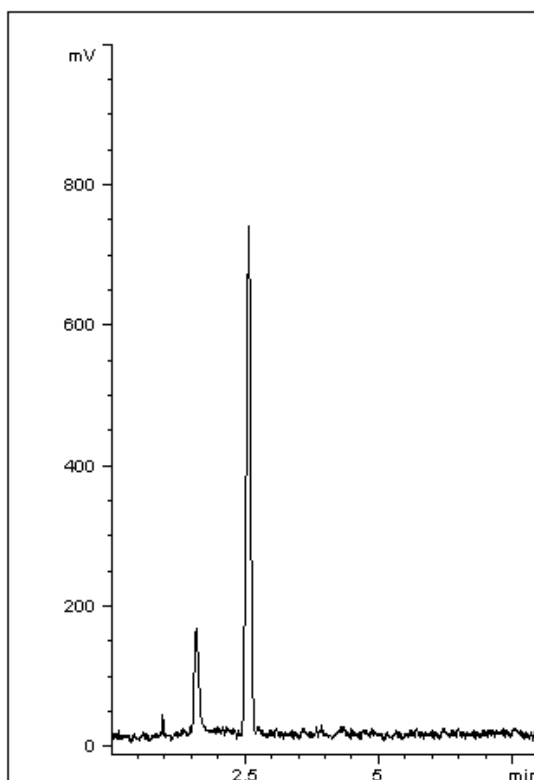


## Retention of a Tricyclic Amine Analyzed with ELSD-AppNote

### Memantine Hydrochloride, a Tricyclic Amine

As this compound lacks Chromophores, it typically requires Derivatization for use in UV detection. In this Method, we retain excellent peak shape without the need for these pre-column derivatization steps.

This compound can also cause issues with Peak Tailing in typical Reversed Phase Columns due to the strong adsorption of residual Silanols. RSD values (less than 0.4%) demonstrate the consistent and reliable Retention.



### Peak:

Memantine HCl

### Method Conditions:

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

**Catalog No.:** 70000-10P

**Dimensions:** 4.6mm x 100mm

# MICROSOLV

**Mobile Phase:** 95% Acetonitrile / 5% DI Water 10 mM Ammonium Formate

**Injection vol.:** 1µL

**Flow rate:** 1.0mL / minute.

**Detection:** ELSD, Gain: 12, Temperature: 50°C, Nitrogen: 3.5 bar.

**Sample Preparation:** 1.0mg / mL Mermantine HCL in DI Water.

***Notes:** Persistent activation of the N-methyl-D-aspartate (NMDA) receptors in the central nervous system triggered by glutamate is believed to cause some of the Alzheimer's disease symptoms. Memantine blocks the effects of glutamate, a neurotransmitter in the brain that leads to neuronal excitability and stimulation, being offered as a treatment for Alzheimer's dementia.*



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