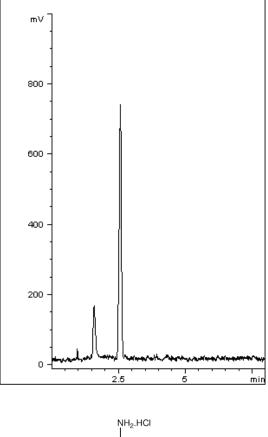
## MICROS

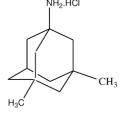
## Retention of a Tricyclic Amine Analyzed with ELSD-AppNote

## Memantine Hydrochloride, a Tricyclic Amine

As this compound lacks Chromophores, it typically requires Derivitization 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<sup>™</sup>, 4µm, 100Å. **Catalog No.**: 70000-10P **Dimensions:** 4.6mm x 100mm



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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