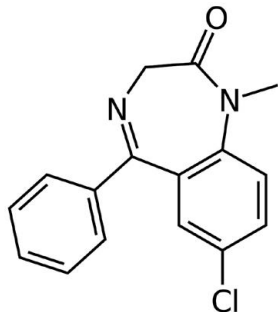
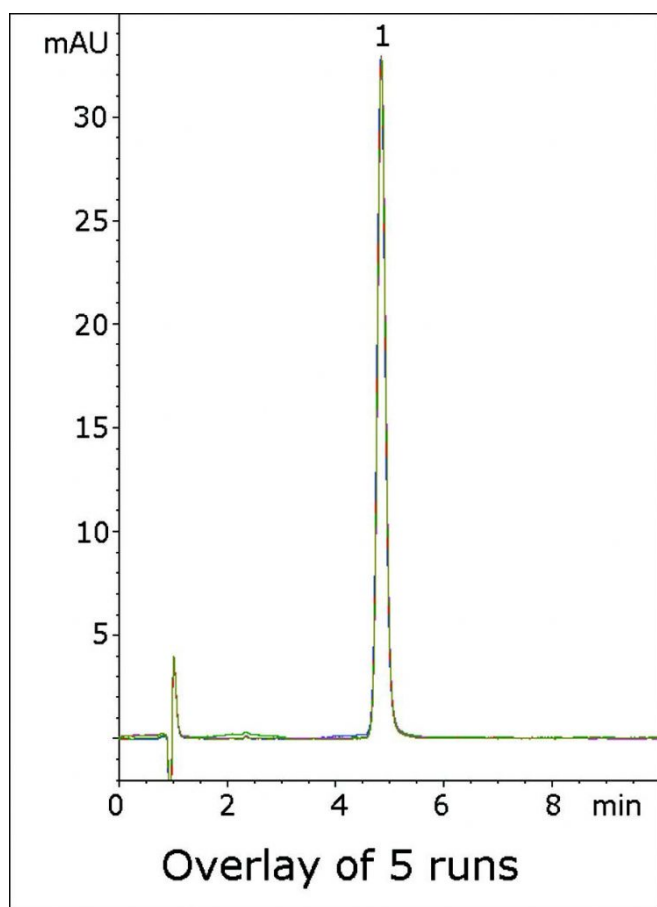


Excellent Peak Shape and Precision for a Benzodiazepine Compound Valium®

This Isocratic Method shows how using 0.1% Trifluoroacetic Acid (*TFA*) in the Mobile Phase can produce a Peak with excellent Efficiency and Symmetry. In the USP Assay Method, System Suitability requires that a tailing factor of not more than 2.0 be obtained for the API, and this Method produces a Peak that is well within the Specification.

An overlay of Five consecutive chromatograms is shown in the Figure to illustrate the Precision and Robustness of the Method.



Peak:
Diazepam

Method Conditions

Column: Cogent Bidentate C8™, 4µm, 100Å

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com

Catalog No.: 40008-75P

Dimensions: 4.6 x 75mm

Mobile Phase: 70:30 DI Water / Acetonitrile with 0.1% Trifluoroacetic Acid (TFA) v/v

Injection vol.: 10µL

Flow rate: 1.0mL / minute

Detection: UV @ 254nm

Sample Preparation: 10mg of a ground Valium® tablet was added to a 10mL volumetric flask containing a portion of a 50:50 Acetonitrile / DI Water diluent. The flask was sonicated 10 minutes and diluted to mark. A portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.).

t₀: 0.9 minutes

Note: Diazepam is a benzodiazepine used to treat conditions such as anxiety, muscle spasms, insomnia, seizures, and to control agitation caused by alcohol withdrawal. It is marketed as Valium® by Hoffmann-La Roche, although generic versions are currently available.



Attachment

No 190 Diazepam Tablet Analyzed with HPLC pdf 0.3 Mb

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com