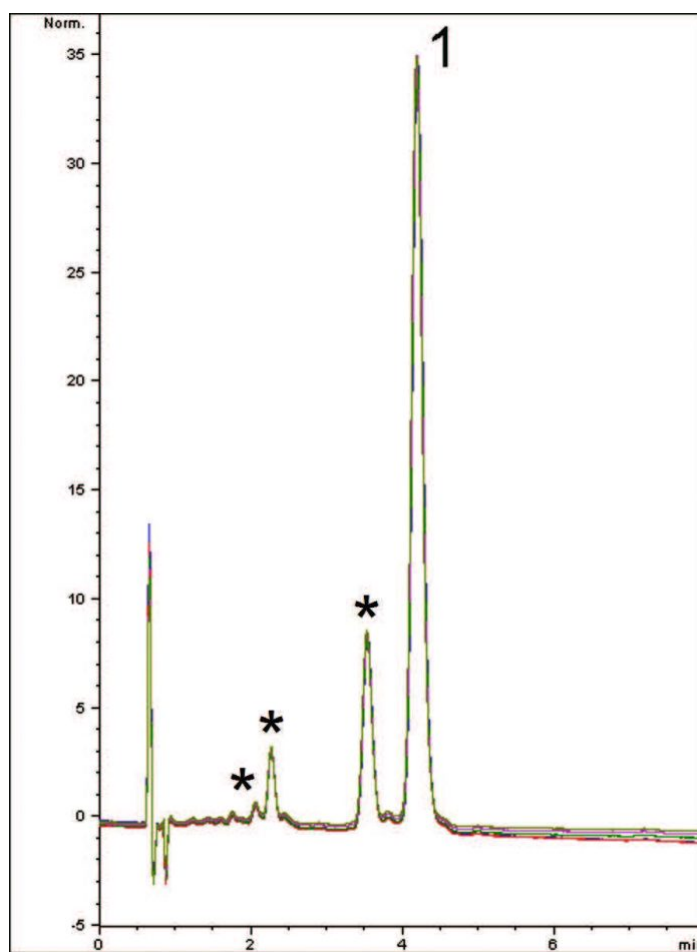


Tetrahydrocannabinol Analyzed by HPLC – AppNote

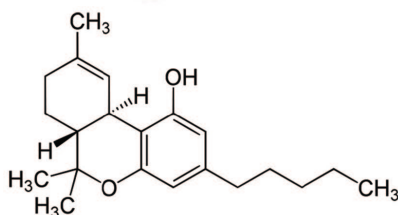
The Psychoactive Component THC in Cannabis

Tetrahydrocannabinol (THC) which is derived from Cannabis, has several isomeric forms, which may account for the extra Peaks observed in the Chromatogram below. Although their identities could not be confirmed, these Peaks can be Separated from the main Peak using this Method. The compound is quite hydrophobic and therefore a relatively high organic content is used in the Mobile Phase to ensure the retention is not excessive.

Run-to-run precision is very reliable using this Method as the overlay of Five Chromatograms demonstrate.



Overlay of 5 runs



Peaks:

1. (-)-trans- Δ^9 -Tetrahydrocannabinol

* Unknown Compounds (*Suspected Isomeric Forms*)

Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å

Catalog No.: 40018-75P

Dimensions: 4.6 x 75mm

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

Injection vol.: 20µL

Flow rate: 1mL / minute

Detection: UV @ 288nm

Sample Preparation: Δ9-Tetrahydrocannabinol analytical standard solution (1mg / mL in Methanol, Sigma-Aldrich cat# T4764) was diluted 1:10 with Diluent of 80:20 Acetonitrile / DI Water.

Note: THC is the psychoactive component found naturally in the Cannabis plant. Although still classified as a Schedule I controlled substance at the Federal Level, many US states now have laws allowing its use for recreational purposes.



Attachment

No 357 Tetrahydrocannabinol Analyzed by HPLC pdf 0.4 Mb [Download File](#)

Printed from the Chrom Resource Center

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

Date: 05-12-2024