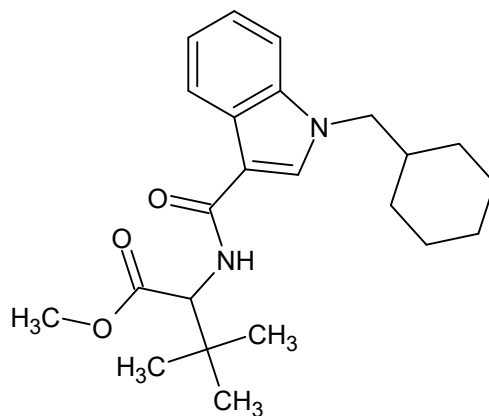




MDMB-CHMICA

The Drug Enforcement Administration's Special Testing and Research Laboratory generated this monograph using structurally confirmed reference material.



1. GENERAL INFORMATION

IUPAC Name: methyl 2-(1-(cyclohexylmethyl)-1*H*-indole-3-carboxamido)-3,3-dimethylbutanoate

CAS#: 1971007-95-0

Synonyms: MMB-CHMINACA, methyl 2- {[1-(cyclohexylmethyl)-1*H*-indole-3-carbonyl]amino} - 3,3-dimethylbutanoate

Source: DEA Reference Material Collection

Appearance: White powder

UV_{max}(nm): Not determined

2. CHEMICAL AND PHYSICAL DATA

2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Base	C ₂₃ H ₃₂ N ₂ O ₃	384.51	Not Determined



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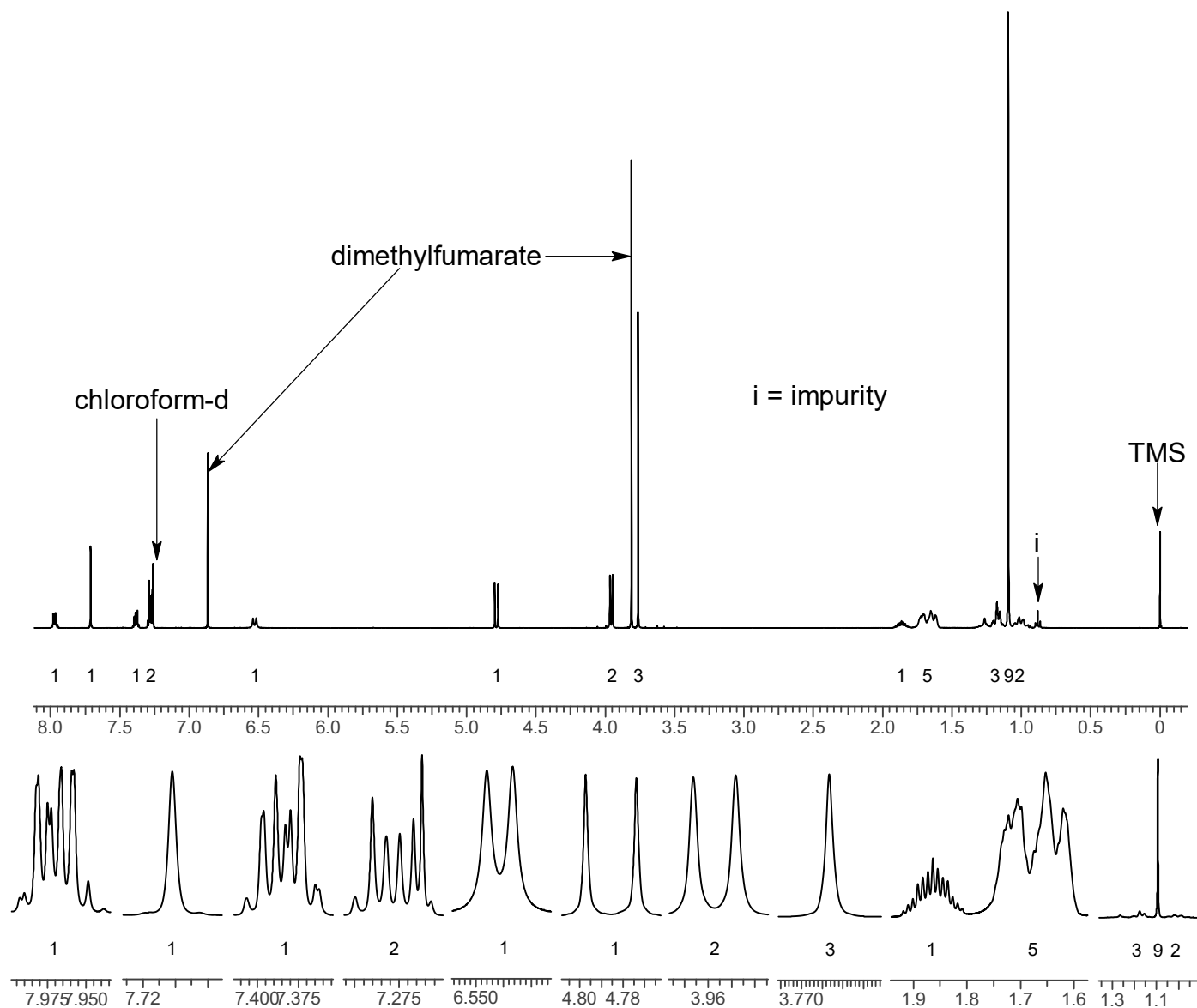
3. QUALITATIVE DATA

3.1 NUCLEAR MAGNETIC RESONANCE

Sample Preparation: Dilute analyte to ~13 mg/mL in CDCl₃ containing TMS for 0 ppm reference and dimethylfumarate as quantitative internal standard.

Instrument: 400 MHz NMR spectrometer
Parameters: Spectral width: at least containing -3 ppm through 13 ppm
Pulse angle: 90°
Delay between pulses: 45 seconds

¹HNMR: MDMB-CHMICA; Lot #0490914-16; CDCl₃; 400MHz





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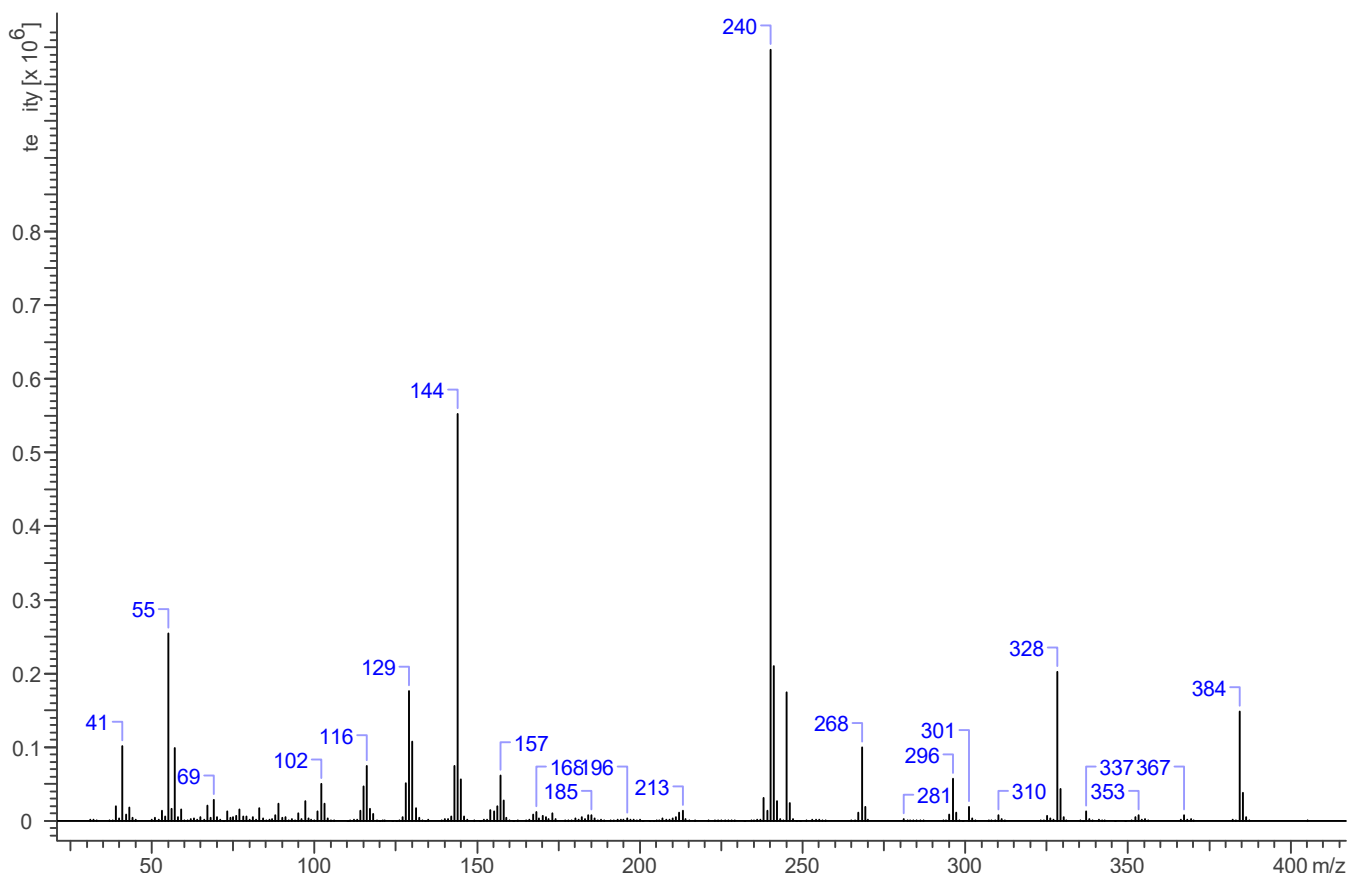


3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

Sample Preparation: Dilute analyte ~3 mg/mL in CHCl₃

Instrument: Agilent gas chromatograph operated in split mode with MS detector
Column: HP-5 MS (or equivalent); 30m x 0.25 mm x 0.25 μm
Carrier Gas: Helium at 1.5 mL/min
Temperatures: Injector: 280°C MSD transfer line: 280°C
MS Source: 230°C MS Quad: 150°C
Oven program:
 1) 100°C initial temperature for 1.0 min
 2) Ramp to 280°C at 12 °C/min
 3) Hold final temperature for 9.0 min
Injection Parameters: Split Ratio = 25:1, 1 μL injected
MS Parameters: Mass scan range: 30-550 amu Threshold: 250
Tune file: stune.u Acquisition mode: scan
Retention Time: 20.34 min

EI Mass Spectrum: MDMB-CHMICA; Lot #0490914-16





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3.3 INFRARED SPECTROSCOPY (FTIR)

Instrument: FTIR Thermo-Scientific iS-10, Smart iTX

Scan Parameters:
Number of scans: 4
Number of background scans: 4
Resolution: 4 cm⁻¹
Sample gain: 1
Aperture: 150

FTIR Thermo-Scientific iS-10, Smart iTX; MDMB-CHMICA; Lot #0490914-16

