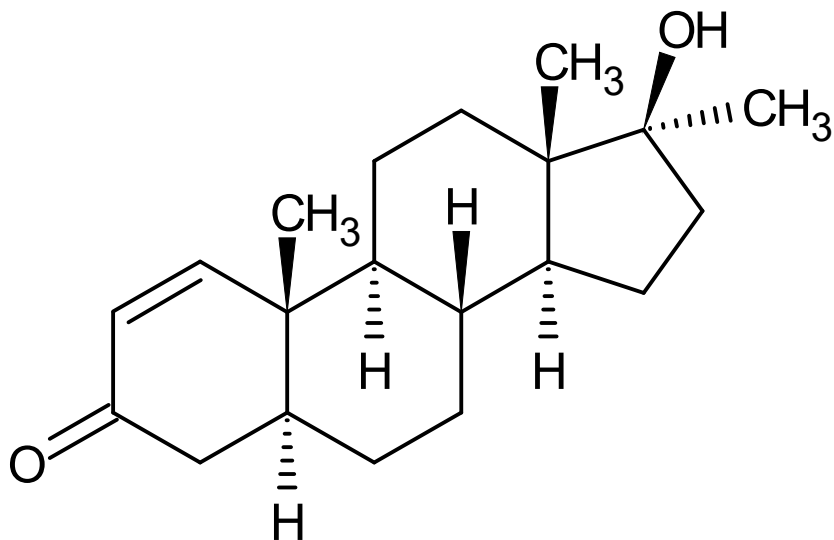




17-*beta*-hydroxy-17-*alpha*-methylandro-1-en-3-one

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



1. GENERAL INFORMATION

IUPAC Name: 17-*beta*-hydroxy-17-*alpha*-methylandro-1-en-3-one

CAS#: 65-04-3

Synonyms: 1,(5-*alpha*)-Androsten-17-*alpha*-methyl-17-*beta*-ol-3-one;
17-*beta*-hydroxy-17-*alpha*-methyl-5-*alpha*-andro-1-en-3-one;
17-*alpha*-methyl-1 Δ -dihydrotestosterone;
1,(5-*alpha*-Androsten-17-*alpha*-methyl-17-*beta*-ol-3-one;
Methyl-1-testosterone;
1-dehydromethandrostenolone (Steraloids)

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)
Neutral	C ₂₀ H ₃₀ O ₂	302.45	Not Determined



17-*beta*-hydroxy-17-*alpha*-methylandrost-1-en-3-one

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



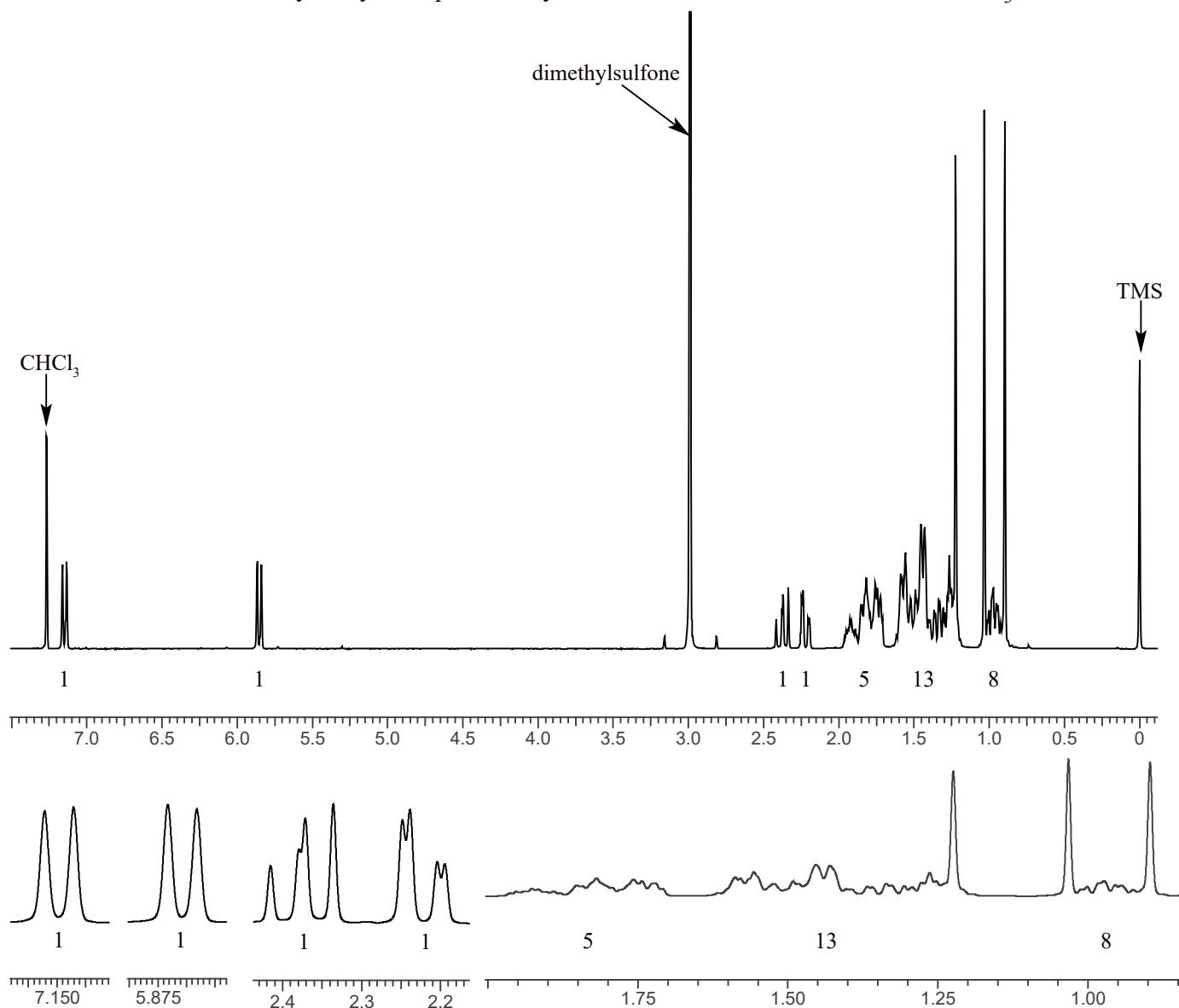
3. QUALITATIVE DATA

3.1 NUCLEAR MAGNETIC RESONANCE

Sample Preparation: Dilute analyte to ~5 mg/mL in CDCl₃ containing TMS for 0 ppm reference and dimethylsulfone 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: 17-*beta*-hydroxy-17-*alpha*-methylandrost-1-en-3-one; Lot # B0365; CDCl₃; 400MHz





17-beta-hydroxy-17-alpha-methylandroster-1-en-3-one

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



3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

Sample Preparation: Dilute analyte ~4 mg/mL in MeOH

Instrument: Agilent gas chromatograph operated in split mode with MS detector

Column: HP-1 MS (or equivalent); 30m x 0.25 mm x 0.25 μ m

Carrier Gas: Helium at 1.5 mL/min

Temperatures: Injector: 280°C MSD transfer line: 280°C

MS Source: 250°C MS Quad: 150°C

Oven program:

1) 100°C initial temperature for 1.0 min

2) Ramp to 300°C at 14 °C/min

3) Hold final temperature for 25.0 min

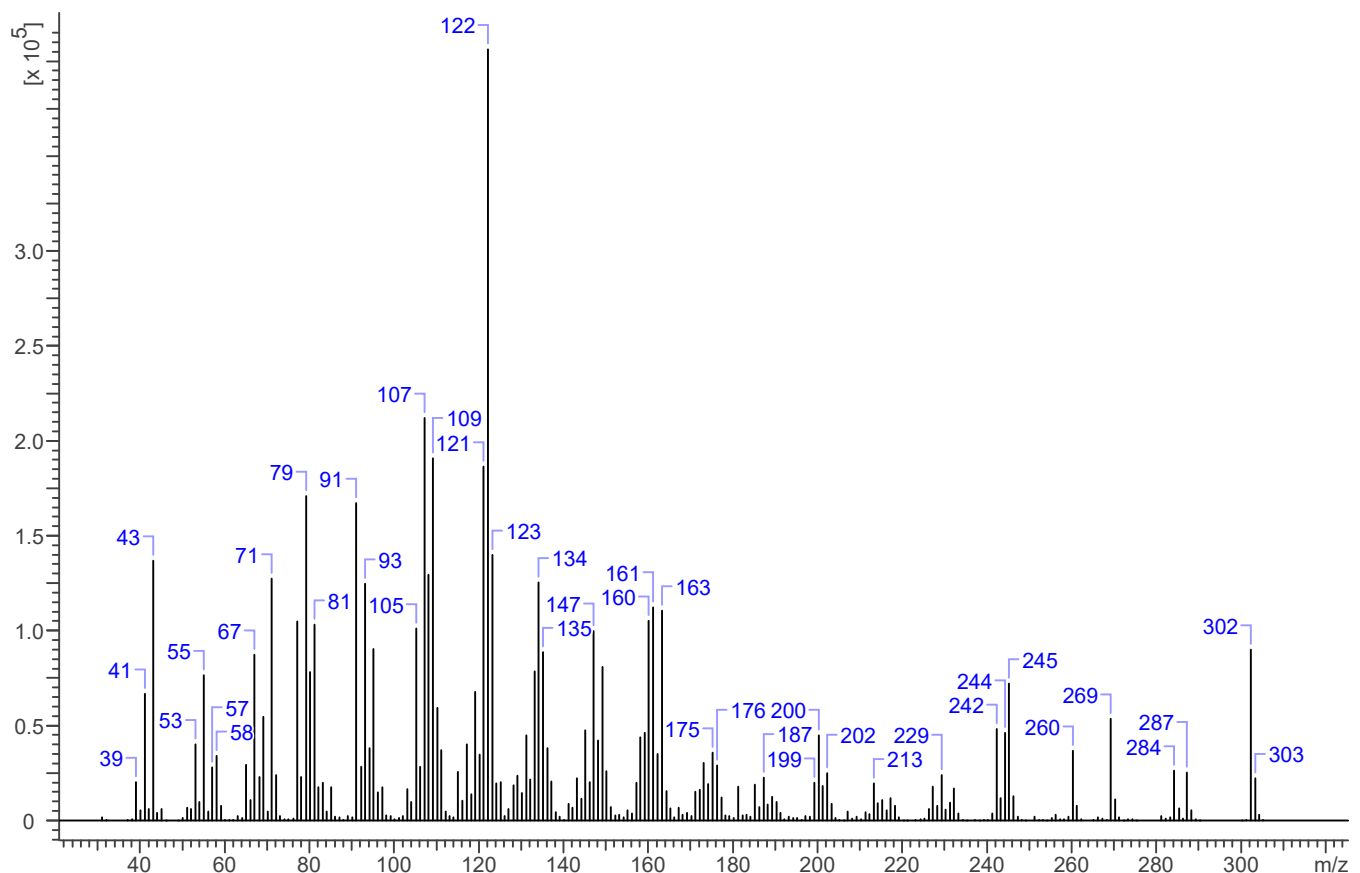
Injection Parameters: Split Ratio = 20:1, 1 μ L injected

MS Parameters: Mass scan range: 30-550 amu Threshold: 90

Tune file: stune.u Acquisition mode: scan

Retention Time: 15.915 min

EI Mass Spectrum: 17-beta-hydroxy-17-alpha-methylandroster-1-en-3-one; Lot# B0365





17-*beta*-hydroxy-17-*alpha*-methylandroster-1-en-3-one

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

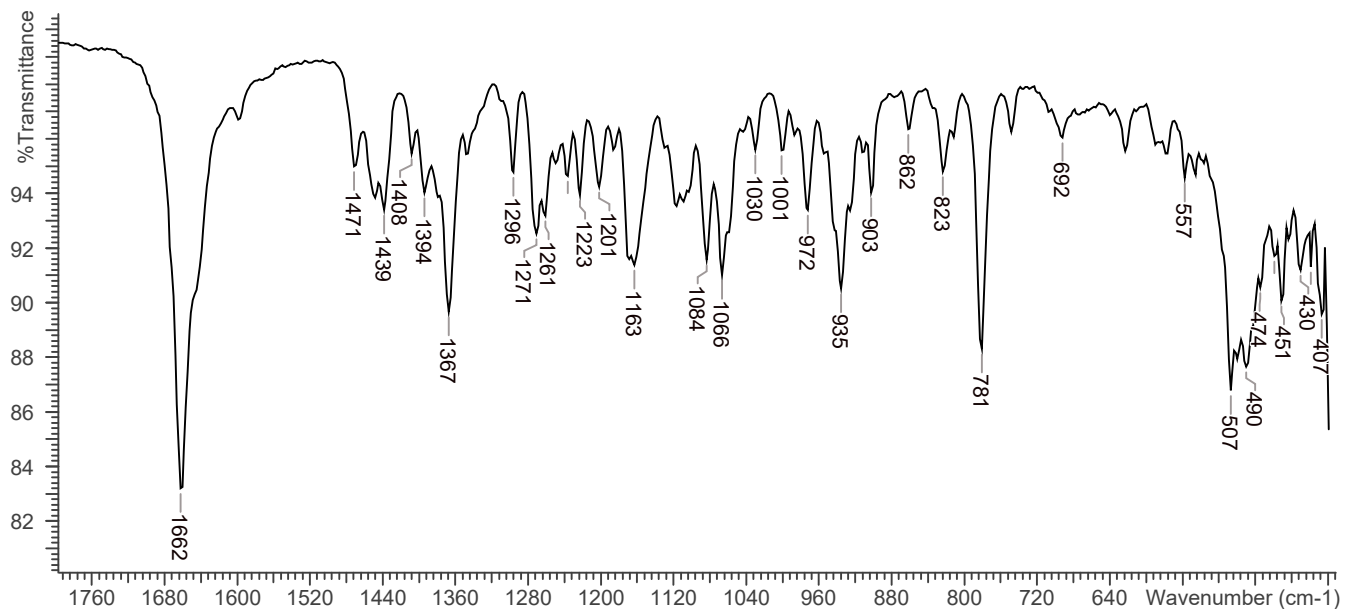
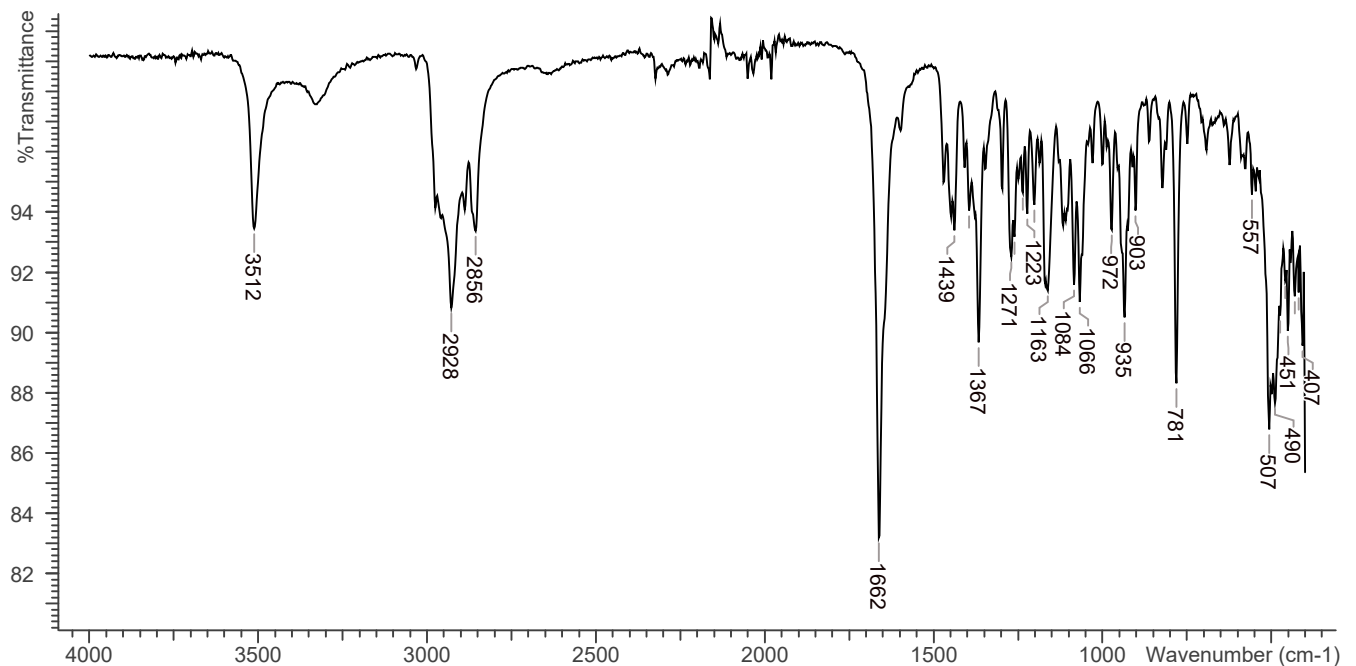


3.3 INFRARED SPECTROSCOPY (FTIR)

Instrument: FTIR with diamond ATR attachment (1 bounce)

Scan Parameters:
Number of scans: 32
Number of background scans: 32
Resolution: 4 cm⁻¹
Sample gain: 8
Aperture: 150

FTIR ATR (Diamond 1 Bounce): 17-*beta*-hydroxy-17-*alpha*-methylandroster-1-en-3-one; Lot# B0365





17-beta-hydroxy-17-alpha-methylandrost-1-en-3-one

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



4. ADDITIONAL RESOURCES

No additional resources as of 03/2016