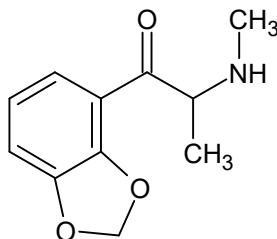




## 2,3-Methylenedioxypropylmethcathinone

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



### 1. GENERAL INFORMATION

**IUPAC Name:** 1-(2*H*-1,3-benzodioxol-4-yl)-2-(methylamino)propan-1-one

**CAS#:** 1797884-10-6 (HCl)

**Synonyms:** 2,3-MDMC; 2,3-Methylone

**Source:** DEA Reference Material Collection

**Appearance:** White Powder

**UV<sub>max</sub>(nm):** Not determined

### 2. CHEMICAL AND PHYSICAL DATA

#### 2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Base	C <sub>11</sub> H <sub>13</sub> NO <sub>3</sub>	207	Note Determined
HCl	C <sub>11</sub> H <sub>13</sub> NO <sub>3</sub> HCl	243	205.6



## 2,3-Methylenedioxyethcathinone

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



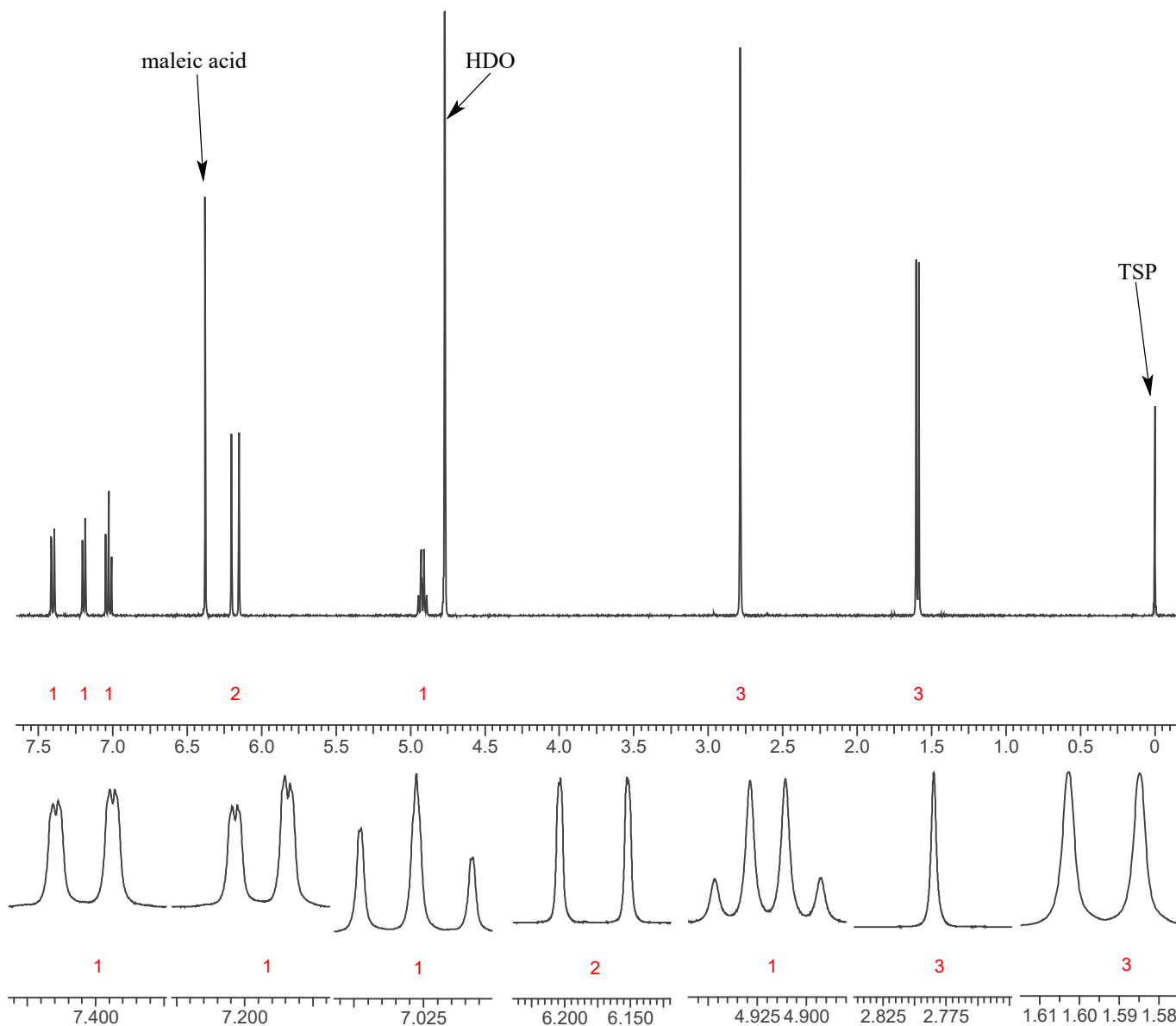
### 3. QUALITATIVE DATA

#### 3.1 NUCLEAR MAGNETIC RESONANCE

*Sample Preparation:* Dilute analyte to ~6 mg/mL in D<sub>2</sub>O containing TSP for 0 ppm reference and maleic acid 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

<sup>1</sup>HNMR: 2,3-Methylenedioxyethcathinone HCl; Lot# 0433607-19; D<sub>2</sub>O; 400MHz





## 2,3-Methylenedioxymethcathinone

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



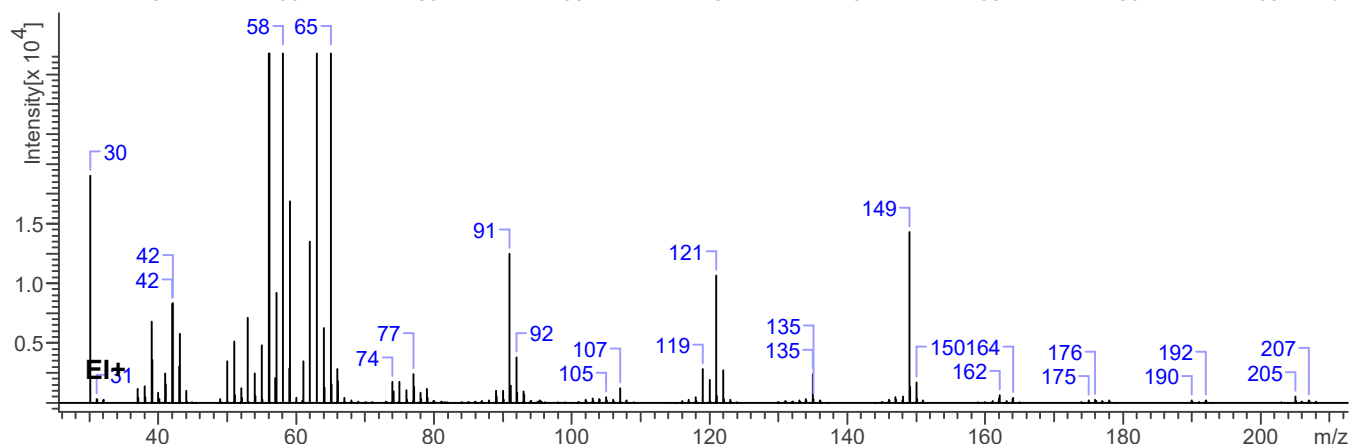
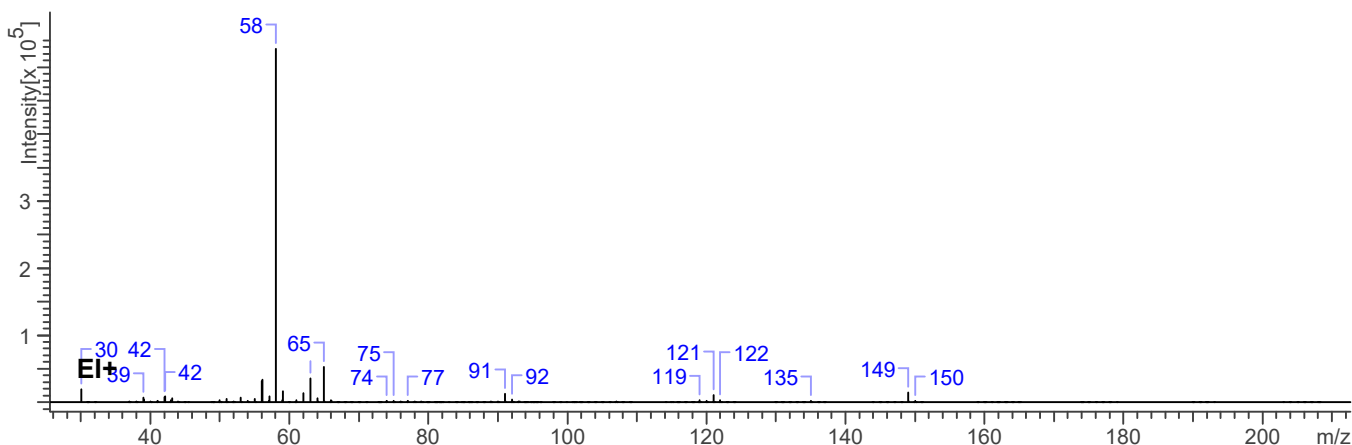
### 3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

**Sample Preparation:** Dilute analyte ~4 mg/mL in CHCl<sub>3</sub> (1M NaOH extract)

**Instrument:** Agilent gas chromatograph operated in split mode with MS detector  
**Column:** DB-1 MS (or equivalent); 30m x 0.25 mm x 0.25 μm  
**Carrier Gas:** Helium at 1.0 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 300°C at 12 °C/min  
    3) Hold final temperature for 9.0 min

**Injection Parameters:** Split Ratio = 20:1, 1 μL injected  
**MS Parameters:** Mass scan range: 30-550 amu                      Threshold: 100  
Tune file: stune.u                      Acquisition mode: scan  
**Retention Time:** 7.874 min

EI Mass Spectrum: 2,3-Methylenedioxymethcathinone HCl; Lot# 0433607-19





## 2,3-Methylenedioxyethcathinone

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

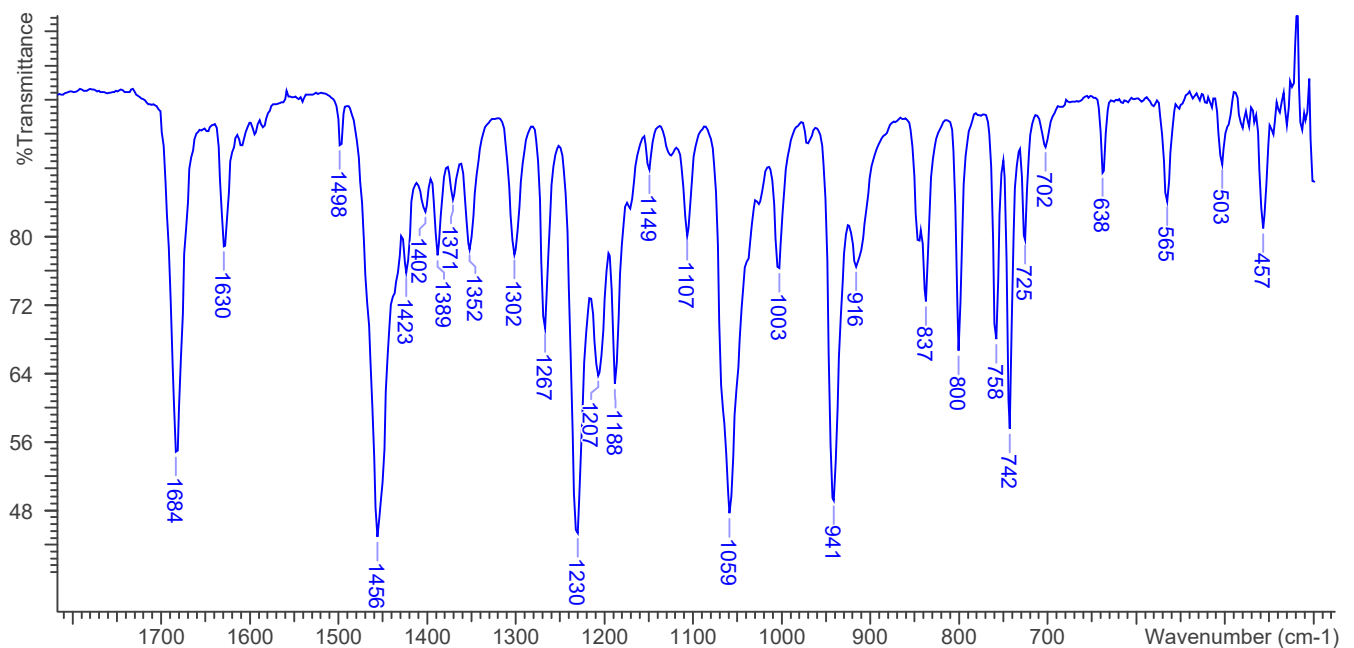
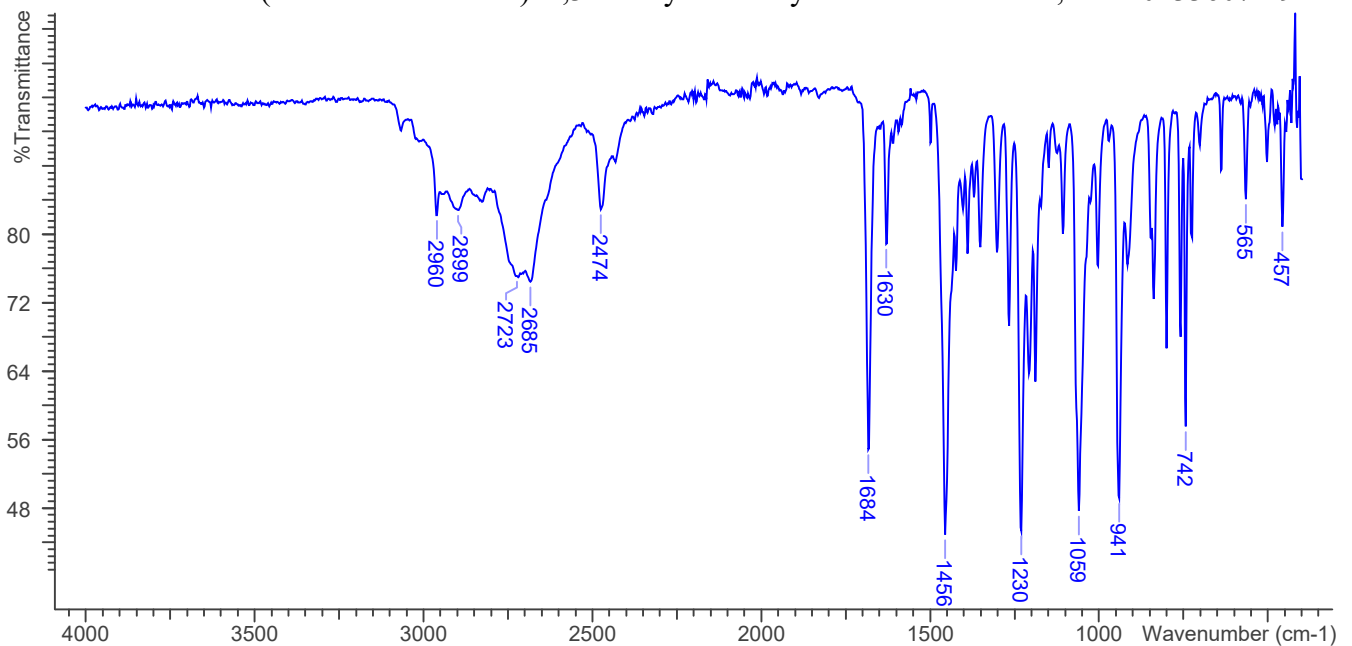


### 3.3 INFRARED SPECTROSCOPY (FTIR)

**Instrument:** FTIR with diamond ATR attachment (1 bounce)

**Scan Parameters:**  
Number of scans: 32  
Number of background scans: 32  
Resolution: 4  $\text{cm}^{-1}$   
Sample gain: 8  
Aperture: 150

FTIR ATR (Diamond 1 Bounce): 2,3-Methylenedioxyethcathinone HCl; Lot# 0433607-19





## 2,3-Methylenedioxymethcathinone

*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