



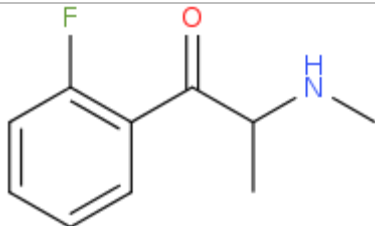
ANALYTICAL REPORT

2-Fluoromethcathinone (C₁₀H₁₂FNO)

1-(2-fluorophenyl)-2-(methylamino)propan-1-one

Remark – other active cpd. detected: **none**

Sample ID:	1470-16
Sample description:	liquid - clear
Sample type:	RM-reference material
Comments ¹ :	LGC Lot#11474; compound was partially disproportionated I-SEE - purchasing
Date of entry:	2/19/2016

Substance identified- structure ² (base form)	
Systematic name:	1-(2-fluorophenyl)-2-(methylamino)propan-1-one
Other names:	2-FMC
Formula (per base form)	C ₁₀ H ₁₂ FNO
M _w (g/mol)	181.21
Salt form:	HCl
StdInChIKey	DCMOUMKIDLRIBO-UHFFFAOYSA-N
Compound Class	Cathinones
Other active cpd. detected	none
Add.info (purity..)	1mg/ml in MeOH (in GC compound partially disproportionate; see in FSI 194 (2010, p 53-58) and figures below, pure by HPLC-TOF)

¹ This report has been produced with the financial support of the Prevention of and fight against crime Programme of the European Union (grant agreement number JUST/2013/ISEC/DRUGS/AG/6426). The contents of this report are the sole responsibility of the National Forensic Laboratory and can in no way be taken to reflect the views of the European Commission.

² Created by OPSIN free tool: <http://opsin.ch.cam.ac.uk/> DOI: 10.1021/ci100384d

Report updates

date	comments (explanation)

Supporting information

Analytical technique:	applied	remarks
GC-MS (EI ionization)	+	NFL GC-RT (min): 2.81 BP(1): 58; BP(2): 56,BP(3) :95,
HPLC-TOF	+	(results not enclosed)

GC-MS (Agilent):

GC-method is RT locked to tetracosane (RT=9.53 min).

Injection volume 1 ml and split mode (1:50) .

Injector temperature: 280 °C.

Chromatographic separation

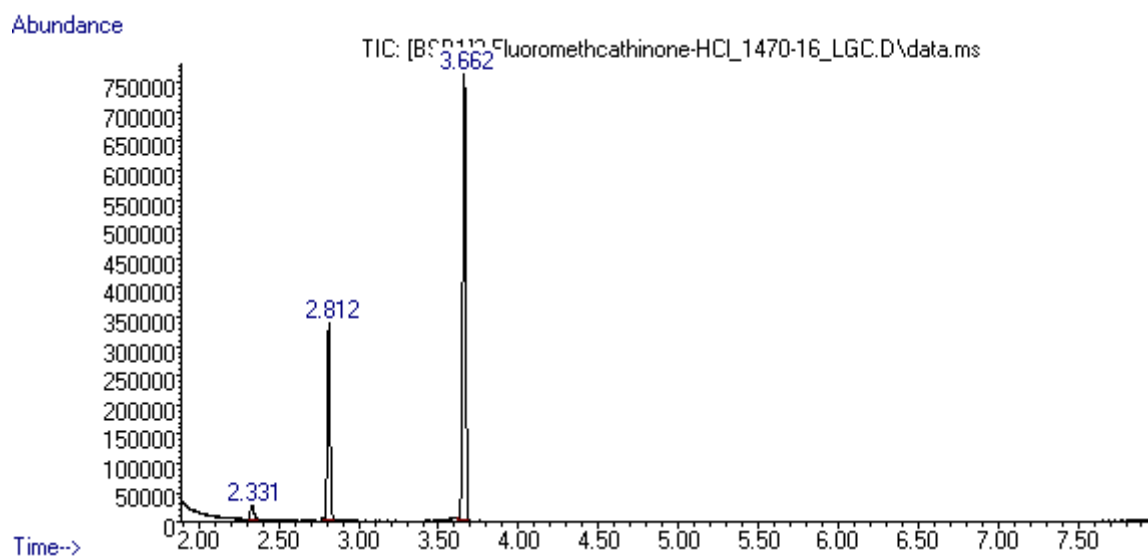
Column: HP1-MS (100% dimethylpolysiloxane), length 30 m, internal diameter 0.25 mm, film thickness 0.25 mm.

Carrier gas He: flow-rate 1.2 ml/min. GC oven program: 170 °C for 1 min, followed by heating up to 293 °C at a rate of 18 °C/min, hold for 6.1 min, then heating at 50 °C/min up to 325 °C and finally 2.8 min isothermal.

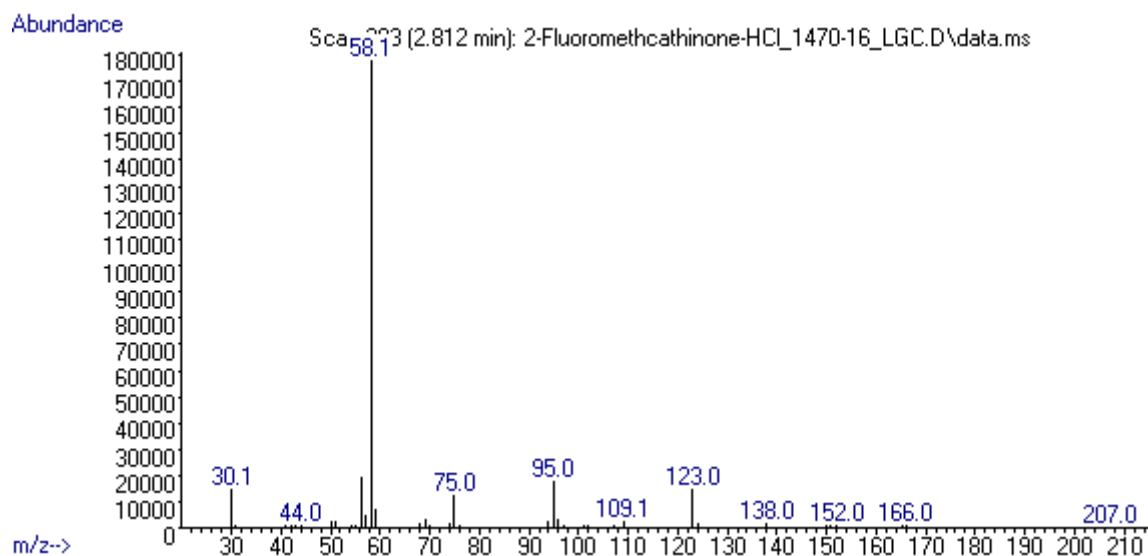
MSD source EI = 70 eV. GC-MS transfer line T= 235°C, source and quadrupole temperatures 280°C and 180°C, respectively. Scan range m/z scan range: from 50 (30 until 6 min) to 550 (300) amu.

HPLC-TOF (Agilent): 6230B TOF with Agilent 1260 Infinity HPLC with binary pump, column: Zorbax Eclipse XDB-C18, 50 x 4.6 mm, 1.8 micron. Mobile phases (A) 0.1% formic acid and 1mM ammonium formate in water; (B) 0.1% formic acid in methanol (B). Gradient: starting at 5% B, changing to 40% B over 4 min, then to 70% over 2 min and in 5 min to 100%, hold 1 min and back to 5%, equilibration for 1.7 min. The flow rate: 1.0 ml/min; Injection volume 1 µl. MS parameters: 2GHz, Extended Dynamic range mode to a maximum of 1700 amu, acquisition rate 1.30 spectra/sec. Sample ionisation: by Agilent Jet Stream technology (Dual AJS ESI). Ion source: positive ion scan mode with mass scanning from 82 to 1000 amu. Other TOF parameters: drying gas (N2) and sheath temperature 325 °C; drying gas flow rate 6 l/min; sheath gas flow rate 8 l/min; nebulizer 25 psig; Vcap. 4000 V; nozzle 2000 V; skimmer 65 V; fragmentor 175 V and Octopole RF 750 V.

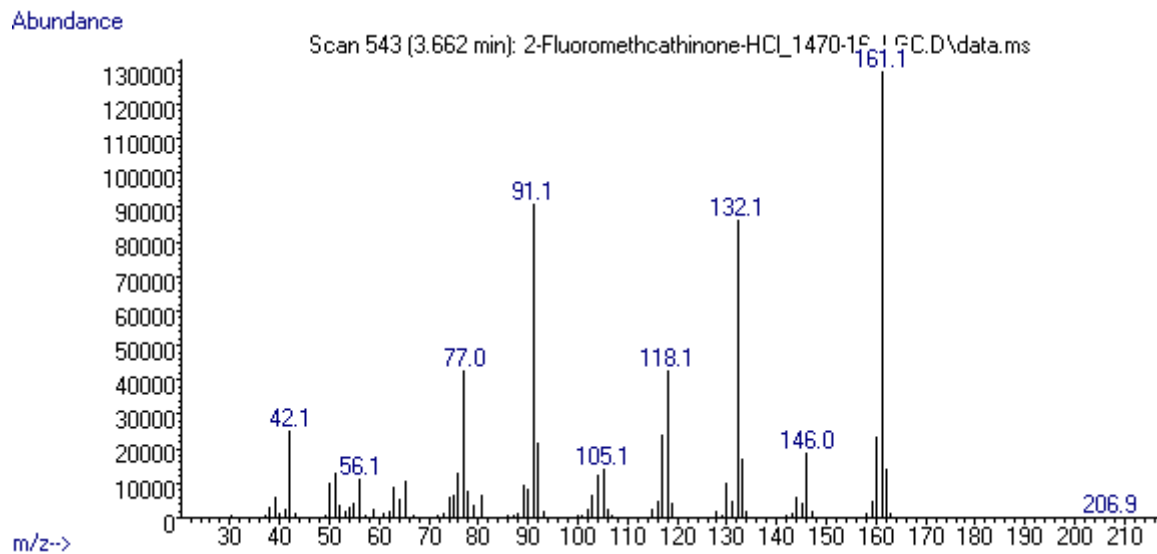
FIGURES OF SPECTRA



Chromatogram: 2-fluoromethcathinone at 2.81 min and 1-(2-fluorophenyl)propan-1-one at 3.66 min



MS spectrum of 2-FMC at 2.81 min



MS spectrum of 1-(2-fluorophenyl)propan-1-one at 3.66 min