**ANALYTICAL REPORT**

4-Anilino-1-Benzylpiperidine (C18H22N2)

1-benzyl-N-phenylpiperidin-4-amine

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

<table>
<thead>
<tr>
<th>Sample ID:</th>
<th>1759-17</th>
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</thead>
<tbody>
<tr>
<td>Sample description:</td>
<td>powder - white</td>
</tr>
<tr>
<td>Sample type:</td>
<td>RM-reference material</td>
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<tr>
<td>Comments¹:</td>
<td>; RESPONSE -purchasing</td>
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<tr>
<td>Date of entry:</td>
<td>2/17/2017</td>
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**Substance identified-structure² (base form)**

![Chemical Structure Image]

Systematic name: 1-benzyl-N-phenylpiperidin-4-amine

Other names: NSC 76613, N-phenyl-1-(phenylmethyl)-4-piperidinamine

Formula (per base form) C18H22N2

Mₘ (g/mol) 266.39

Salt form: base

StdInChIKey (for base form) FSXGJIFBTBJSV-UHFFFAOYSA-N

Other active cpd. detected none

Add.info (purity..) 98%

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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/6413). 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/](http://opsin.ch.cam.ac.uk/)  DOI: 10.1021/ci100384d
Report updates

<table>
<thead>
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<th>comments (explanation)</th>
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Supporting information

Analytical technique: | applied | remarks
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GC-MS (EI ionization) | + | NFL GC-RT (min): 9,01 BP(1): 91; BP(2): 173, BP(3): 172,
FTIR-ATR | + | direct measurement
GC-IR (condensed phase) | + | always as base form

1. GC-MS (Agilent): GC-method is RT locked to tetracosane (9.258 min). Injection volume 1 ml and split mode (1:50). Injector temperature: 280 °C. Chromatographic separation: on column HP1-MS (100% dimethylpolysiloxane), length 30 m, internal diameter 0.25 mm, film thickens 0.25 μm. Carrier gas He: flow-rate 1.2 ml/min. GC oven program: 170 °C for 1 min, followed by heating up to 190 °C at rate 8 °C/min, then heating up to 293 °C at a rate of 18 °C/min, hold for 7.1 min, then heating at 50 °C/min up to 325 °C and finally 6.1 min isothermal. MSD source EI = 70 eV. GC-MS transfer line T= 235°C, source and quadropole temperatures 280°C and 180°C, respectively. Scan range m/z scan range: from 50 (30 until 6 min.) to 550 (300 until 6 min) amu.

2. FTIR-ATR (Perkin Elmer): scan range 4000-400 cm⁻¹; resolution 4cm⁻¹

3. GC-MS-IR condensed phase (GC-MS (Agilent) & IR (Spectra analyses-Danny)
MSD source EI = 70 eV. GC-MS transfer line T= 235°C, source and quadropole temperatures 280°C and 180°C, respectively. Scan range m/z scan range: from 50 (30 until 6 min.) to 550 (300 until 6 min) amu.
IR (condensed (solid) phase): IR scan range 4000 to 650, resolution 4 cm⁻¹.

4. HPLC-TOF for exact monoisotopic mass and empirical formula control - results are not shown in the report.
ANALYTICAL RESULTS

MS (EI)

Abundance

m/z ->

2200000  2000000  1800000  1600000  1400000  1200000  1000000  800000  600000  400000  200000  0

65.1  118.0  146.1  173.1  193.0  207.0  237.1  266.2  283.0

Scz: 783 (9.099 min); 4-amino-1-benzylpyridine_1759-17_CAY3data.m
FTIR-ATR - direct measurement (sample as received)

IR (condensed phase – after chromatographic separation)