

Certificate of Analysis No. : 1629469

Customer

BRAIMIOTIS - P. SCARLATOS Ltd

144, 3rd SEPTEMVRIOU

11251 ATHENS

Attn.: Mr GOROGIAS

Date of issue: 9/11/2016

Sample information

Sample kind : Parts of Electronic cigarette

Sample identification : G14 Clearomizer (D-ATG14-161018-006) / OCC Coil Cylinder 1,6 Ohm (D-COCC-161018-006) / 5Pin Compact Battery (D-MCOMP-161018-006), prod/imp.: JFT Co, Ltd.1209, Seoulsoop SK-V1 Tower,5,Seongsuilro 8-gil, Seongdong-gu,Seoul, KOREA 04793

Received on : 20/10/2016 2:10:00 p.m.

Packaging : ---

Seals : None

Temperature : Ambient

Condition on receipt : Normal

Sampling information

Sampling responsible : Customer

Date : ---

Location : ---

Point : ---

Method : ---

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Analysis result

Date of analysis : 26/10/2016 – 2/11/2016

PARAMETER	METHOD	UNITS	RESULT	LIMITS
E-cigarette emission testing			.	
Emission protocol			.	
E-liquid			Reference A (AFNOR XP D 90-300-3)	
MOD			5Pin Compact Battery	
Atomizer			G14 Clearomizer	
Atomizer head/coil			OCC Coil Cylinder 1,6 Ohm	
Coil Composition			Cr20Ni80	
Battery type			li-ion	
Battery capacity		mAh	900	
Wattage		W	7,87	
Voltage		V	3,55	
Device Airflow		on/off	full ON	
Puff duration		sec	3	
Puff interval (frequency)		sec	30	
Puffs per set		unit	20	
Set number		unit	5	
Puff number		unit	100	
Aspiration Airflow		l/min	1,1	
Puff volume		ml	55	
Vapor temperature at mouthpiece outlet		°C	<60	
Inclination angle of e-cigarette tank		°	45	
Emissions			.	
Nicotine 1st set	* GC/FID	mg / 100 puffs	8,2	
Nicotine 3rd set	* GC/FID	mg / 100 puffs	7,1	
Nicotine 5th set	* GC/FID	mg / 100 puffs	8,1	
Nicotine average		mg / 100 puffs	7,8	

The analysis results refer only to the items tested

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(*)Method out of the scope of accreditation

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Conclusion

The mass variability of the emitted nicotine is less than 25% for each measurement relative to the average value of the 3 measurements.

For
A. TSAKALIDIS Inc.

A. TSAKALIDIS
Managing Director

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APPENDIX A

SAMPLE'S PHOTOGRAPH

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APPENDIX B

CHROMATOGRAMS

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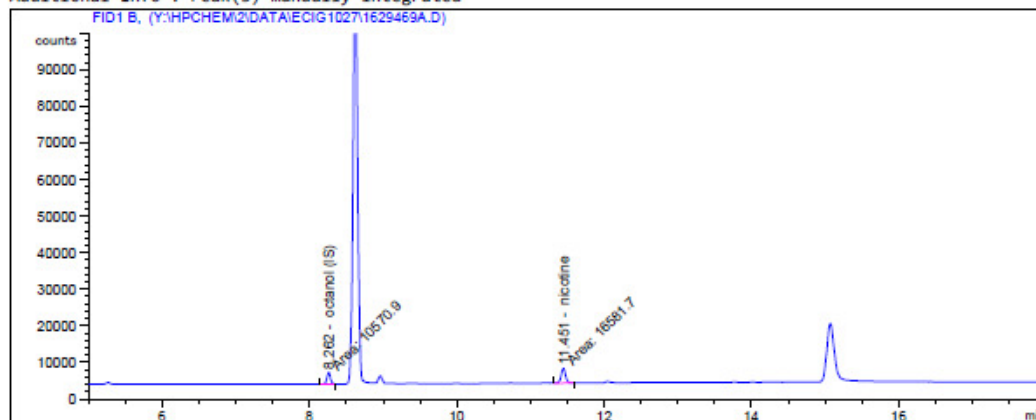
1. Nicotine in the first set

Data File Y:\HPCHEM\2\DATA\ECIG1027\1629469A.D
 Sample Name: 1629469a

```
=====
Acq. Operator   : drillia                      Seq. Line :   34
Acq. Instrument : Instrument 2                  Location  : Vial 34
Injection Date  : 29/10/2016 8:02:34 µµ        Inj       :    1
                                           Inj Volume: 1 µl

Acq. Method     : C:\HPCHEM\2\METHODS\ECIGAR.M
Last changed    : 28/10/2016 4:50:39 µµ by drillia
Analysis Method : C:\METHODS (PROS) FID\ECIGAR2.M
Last changed    : 10/11/2016 3:15:51 µµ
                  (modified after loading)
Method Info     : GC5 HP wax
=====
```

Additional Info : Peak(s) manually integrated



Area Percent Report

```
=====
Sorted By      : Signal
Calib. Data Modified : 10/11/2016 3:15:51 µµ
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Area %	Name
1	8.262	MM +	0.0556	1.05709e4	38.93152	octanol (IS)
2	11.451	MM +	0.0683	1.65817e4	61.06848	nicotine
3	12.054	+	0.0000	0.00000	0.00000	diethylen
Totals :				2.71526e4	100.0000	

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2. Nicotine in the third set

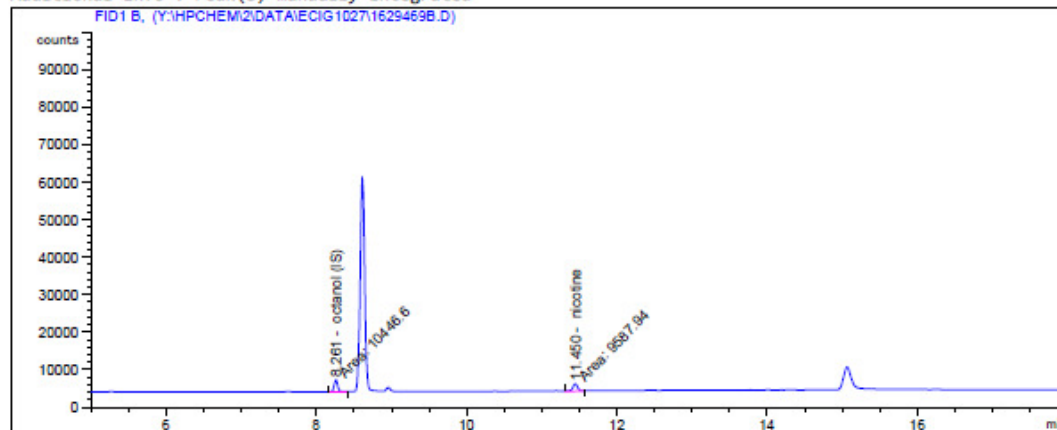
Data File Y:\HPCHEM\2\DATA\ECIG1027\1629469B.D

Sample Name: 1629469b

```
=====
Acq. Operator   : drillia                      Seq. Line :   35
Acq. Instrument : Instrument 2                  Location  : Vial 35
Injection Date  : 29/10/2016 8:30:00 μm         Inj       :    1
                                           Inj Volume: 1 μl

Acq. Method     : C:\HPCHEM\2\METHODS\ECIGAR.M
Last changed    : 28/10/2016 4:50:39 μm by drillia
Analysis Method : C:\METHODS (PROS) FID\ECIGAR2.M
Last changed    : 10/11/2016 3:15:51 μm
                  (modified after loading)
Method Info     : GCS HP wax
=====
```

Additional Info : Peak(s) manually integrated



Area Percent Report

```
=====
Sorted By      : Signal
Calib. Data Modified : 10/11/2016 3:15:51 μm
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Area %	Name
1	8.261	MM +	0.0561	1.04466e4	52.14301	octanol (IS)
2	11.450	MM +	0.0796	9587.93555	47.85699	nicotine
3	12.054	+	0.0000	0.00000	0.00000	diethylen
Totals :				2.00346e4	100.0000	

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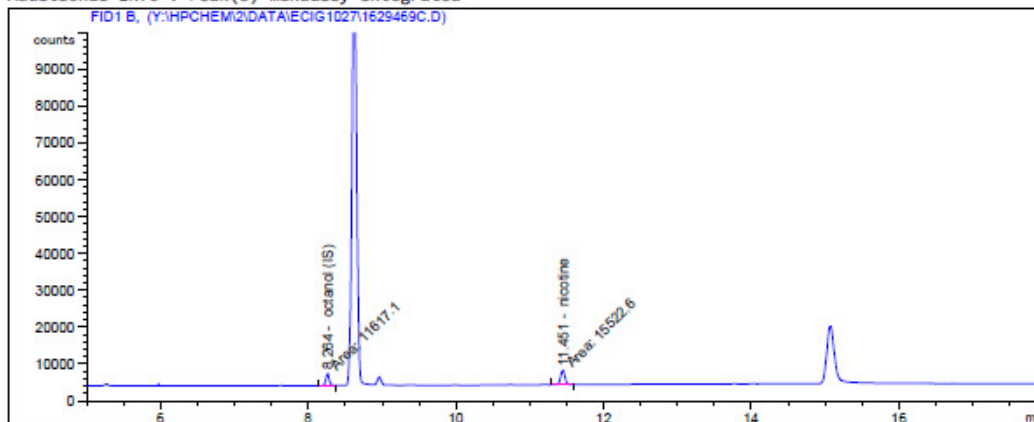
3. Nicotine in the fifth set

Data File Y:\HPCHEM\2\DATA\ECIG1027\1629469C.D
 Sample Name: 1629469c

```
=====
Acq. Operator   : drillia                      Seq. Line :   36
Acq. Instrument : Instrument 2                  Location  : Vial 36
Injection Date  : 29/10/2016 8:57:33 µµ        Inj       :    1
                                           Inj Volume: 1 µl

Acq. Method     : C:\HPCHEM\2\METHODS\ECIGAR.M
Last changed    : 28/10/2016 4:50:39 µµ by drillia
Analysis Method : C:\METHODS (PROS) FID\ECIGAR2.M
Last changed    : 10/11/2016 3:15:51 µµ
                  (modified after loading)
Method Info     : GC5 HP wax
=====
```

Additional Info : Peak(s) manually integrated



Area Percent Report

```
=====
Sorted By      : Signal
Calib. Data Modified : 10/11/2016 3:15:51 µµ
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Area %	Name
1	8.264	MM +	0.0560	1.16171e4	42.80485	octanol (IS)
2	11.451	MM +	0.0657	1.55226e4	57.19515	nicotine
3	12.054	+	0.0000	0.00000	0.00000	diethylen

Totals : 2.71397e4 100.0000

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APPENDIX C

ANALYTICAL METHODS DESCRIPTION

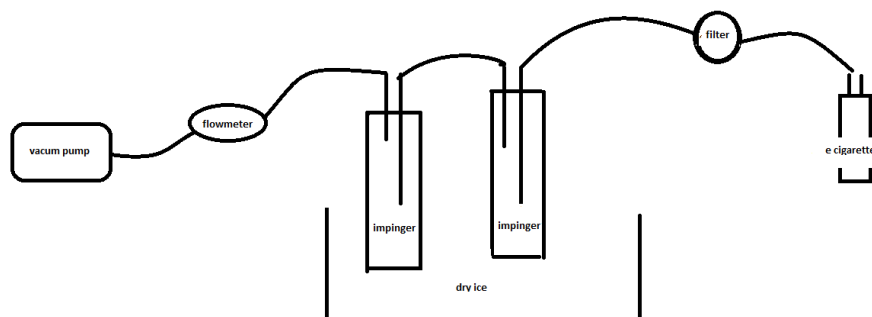
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TESTING OF CONSTANT EMISSION OF NICOTINE FROM ELECTRONIC CIGARETTE DEVICE

1. Vapor sampling

For the testing of constant emission of nicotine from electronic cigarette devices, a vaporization test using the reference liquid A is carried out (&5.2.4, AFNOR XP D90-300-3) according to the parameters defined in paragraphs 5.4.2 , 5.4.7 & 5.9 of AFNOR XP D90-300-3 (July 2016), and the concentration of nicotine which is emitted during the first, third and fifth period of puffs is determined.

For the collection of vapor, filters of 37 mm diameter and traps under cooling are used by the use of the following device.



The vapor is collected on filter which is followed by the traps that contain methanol and are cooled by dry ice.

- Each filter is extracted by methanol and nicotine is determined by gas chromatography and flame ionization detector.

2. Description of analytical methods

Determination of nicotine

Instrumentation

- Gas Chromatograph (GC) Hewlett Packard 5890
- Capillary column HP-INNOWAX with dimensions: length 30m x diameter 0.32mm x film thickness 0.25μ
- Injector split/splitless
- Detector FID
- Carrier gas helium

Experimental procedure

The filter is extracted by methanol using ultrasounds, followed by filtration of the extract. Using an appropriate aliquot of the extract, the internal standard 1-octanol is added. Then, analysis by GC/FID is followed and quantification of nicotine is done by the use of calibration curve, which is constructed by the analysis of four standards.