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| Analytical report nr. | : | 1945 | date 08/07/2010 | Total pages: 1 |
| Order nr. | : | 0818 | date 28/06/2010 | |
| Customer | : | Flavourart S.r.l. | | |
| | : | Via Sempione, 100/a – 28047 Oleggio (NO) - Italy | | |
| Sample receiving date | : | 25/06/2010 | | |
| Sampled by | : | Flavourart S.r.l. - Via Sempione, 100/a – 28047 Oleggio (NO) - Italy via express courier. | | |
| Start analysis | : | 05/07/2010 | | |
| End analysis | : | 08/07/2010 | | |
| Analyst | : | Dr. Laura Bellora | | |
| Sample description | : | Clear glass vial with transparent colorless liquid | | |
| Customer reference | : | Heaven Juice Ice Blade 52 mg/ml nicotine lot. 10PR157 | | |

Determination of nicotine.

The sample was analyzed by gas chromatography in association with mass spectrometry (GC/MS), after dilution with an appropriate solvent.

RESULTS

To verify the presence of nicotine, the solution obtained from dilution of the sample was analyzed by gas chromatography in association with mass spectrometry (GC/MS) with acquisition of the full mass spectrum (M/Z 35 a M/Z 400) for every component detected. Were carried out three separate measures. The results obtained are:

Nicotine:

Mean value of the measures 4,73 % w/w of the product contained in the sample.

St. Dev. of the two measures 0,16 w/w of the product contained in the sample.

Coefficient of variation (CV) of the two measures 3,4 % ⁽¹⁾

NOTE: ⁽¹⁾ Calculated as: St. Dev. * 100 / Mean value.

ANALYTICAL CONDITIONS

Analytical procedure: an exactly weight quantity of the sample is dissolved in methanol and then diluted to an exactly final volume (calibrated volumetric flask, class A). The resulting solution was analyzed by gas chromatography in association with mass spectrometry (GC/MS) with acquisition of the full mass spectrum for every component detected from M/Z 35 to M/Z 400. The identification of the components is performed either by comparison with mass spectra available in a database or by comparison with the retention time of a known standard. The quantification of nicotine is performed by external standard method (calibration curve). To separate the compounds, as their polar properties, is used a suitable chromatographic column (RESTEK mod. Stabilwax; L 30 m; I.D. 0,25 mm; PEG d.f. 0,25 µm).

Reference method: US EPA met. 8270C

Instrument: Gas Chromatograph-Mass Spectrometers system SHIMADZU mod. GCMS-QP2010S.

The Analyst

The Laboratory Manager

A.R.C. S.N.C.
dr.ssa Laura Bellora


