

CERTIFICATE OF ANALYSIS

CLIENT DETAILS: Vape Element
DATE STARTED: May 13, 2022
CERTIFICATE NUMBER: CA22091
STUDY REFERENCE: PN22033

SAMPLE DETAILS

SAMPLE DESCRIPTION: Strawberry 20mg
USN: D113

RESULTS (AEROSOL)

Aerosol mass

| ANALYTE | TEST METHOD | UNIT | RESULT | STANDARD DEVIATION |
|--|-------------|-------------------|--------|--------------------|
| E-liquid vaporised mass (EVM) ^N | TM 11.16.1 | mg/10 inhalations | 40.2 | 1.498 |

Aldehydes and ketones

| ANALYTE | TEST METHOD | UNIT | RESULT | STANDARD DEVIATION |
|-------------------------------|-------------|-------------------|--------|--------------------|
| Formaldehyde ^A | TM 11.11.3 | ug/10 inhalations | <1.27 | - |
| Acetaldehyde ^A | TM 11.11.3 | ug/10 inhalations | <2.30 | - |
| Acrolein ^A | TM 11.11.3 | ug/10 inhalations | nd | - |
| Crotonaldehyde ^A | TM 11.11.3 | ug/10 inhalations | nd | - |
| Diacetyl ^A | TM 11.15.1 | ug/50 inhalations | nd | - |
| Acetyl propionyl ^A | TM 11.15.1 | ug/50 inhalations | nd | - |

Nicotine

| ANALYTE | TEST METHOD | UNIT | RESULT | STANDARD DEVIATION |
|-----------------------|-------------|-------------------|--------|--------------------|
| Nicotine ^A | TM 11.12.1 | mg/g | 13.28 | 0.33 |
| | TM 11.12.1 | mg/10 inhalations | 0.43 | - |

Propylene glycol and glycerin

| ANALYTE | TEST METHOD | UNIT | RESULT |
|-------------------------------|-------------|------|--------|
| Propylene glycol ^A | TM 11.12.1 | mg/g | 259.1 |
| Glycerin ^A | TM 11.12.1 | mg/g | 457.2 |

RESULTS (LIQUID)

| ANALYTE | TEST METHOD | UNIT | RESULT |
|----------------------|-------------|------|--------|
| Density ^A | OP 11.67.1 | g/ml | 1.1688 |

^A Accredited to ISO 17025

^N Not accredited to ISO 17025

nd Not detected

REPORTING LIMITS

| Compound | Unit | Limit of detection | Limit of quantification |
|------------------|-------------------|--------------------|-------------------------|
| Formaldehyde | ug/10 inhalations | 0.454 | 1.27 |
| Acetaldehyde | ug/10 inhalations | 0.932 | 2.30 |
| Acrolein | ug/10 inhalations | 1.09 | 4.99 |
| Crotonaldehyde | ug/10 inhalations | 2.12 | 9.49 |
| Diacetyl | ug/50 inhalations | 0.2 | 0.4 |
| Acetyl propionyl | ug/50 inhalations | 1.0 | 1.1 |

ADDITIONAL INFORMATION

Puffing carried out using the standard puffing regime

- 55ml volume
- 3 second duration
- 30 second inter-inhalation duration

Aerosol generation carried out using Cerulean CET18 and MV Sabre ENDs system

TM 11.11.3

Sample aerosol was vaped through an impinger solution of 2,4 DNPH (dinitrophenylhydrazine) where analytes were derivatised. Analysis of standards and samples was carried out using high performance liquid chromatography with UV detection (HPLC-UV Agilent 1260 Infinity II) and the Thermo Scientific Acclaim Carbonyl C18 column 5um x 4.6 x 250mm.

TM 11.15.1

Sample aerosol was captured using ORBO charcoal tubes. Analytes were desorbed using carbon disulphide and methanol. Analysis of standards and samples was then carried out using gas chromatography with mass spectrometry (GC/MS Agilent 7890B/5977B) and a DB-624 column 60m x 0.250mm x 1.40um.

TM 11.12.1

Sample aerosol was captured on Cambridge Filter Pads before being extracted using propan-2-ol. Standards and samples were analysed using gas chromatography with flame ionisation detection (GC-FID Agilent 7890B) and a DB-ALC1 column 30m x 0.320mm x 1.80um.

CONDITIONS OF CERTIFICATE

This Certificate of Analysis relates only to the samples supplied to the laboratory. All samples have been provided by the Client. The results in this certificate should only be reproduced in full. All testing is carried out at the laboratory's permanent facilities.

CERTIFICATE APPROVAL

Laboratory Manager



Rachael Davis (May 31, 2022 16:42 GMT+1)

Rachael Davis

Quality Manager



David Lawson (May 31, 2022 17:00 GMT+1)

David Lawson

Date: May 31, 2022







CA22091 Strawberry 20mg

Final Audit Report

2022-05-31

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