**Table S1.a.** Levels of Flavor-Related Chemicals (Compounds 23 to 65) in 10 Tobacco Products (1 through 10) Without Explicit Flavor Names Purchased in February and March of 2015 in New York City. Products Ranked (Decreasing Order) by Totals for 93 Chemicals Determined. Values Given Are Means For Triplicate Analyses. All Values in Micrograms (μg) of Flavor Chemical per Gram of Product (µg/(g of product), Using a Maximum of Three Significant Figures. Only Values Found to be > 1.0 µg/g Are Given.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|  | Compound | average for all 19 products(µg/g) | Show"Poco Loco"cigarillos(µg/g) | Show“TaTa”cigarillos(µg/g) | Bluntville“Piff”cigarillos(µg/g) | Show“Ba Boom”cigarillos(µg/g) | Black & Mild"Royale"cigars(µg/g) | Hype“Sweet”cigarillos(µg/g) | Show“Buzz”cigarillos(µg/g) | Bluntville“Blue”cigarillos(µg/g) | Rock n’ Roll“Blue”cigars(µg/g) | Hype“Purple Reserve”cigarillos(µg/g) |
|  | Total: | 5460. | 12500. | 7880. | 7810. | 5440. | 4480. | 4440. | 4170. | 3460. | 3420. | 1930. |
| 23 | methyl cinnamate | 21.1 | 78.9 | 35.6 | 3.2 | 276. |  |  |  |  |  |  |
| 24 | ethyl butyrate | 16.0 | 134. | 73.0 |  | 22.9 |  |  | 34.3 |  |  |  |
| 25 | *p*-cymene | 15.7 |  |  |  |  |  |  |  |  |  |  |
| 26 | benzaldehyde | 13.7 | 37.9 | 25.0 | 10.7 | 27.9 | 16.4 | 5.9 | 3.7 | 9.0 | 2.6 | 23.7 |
| 27 | phenethyl alcohol | 12.9 | 52.6 | 29.0 | 2.1 | 3.9 | 5.1 | 1.9 | 7.6 | 2.1 | 3.0 | 14.1 |
| 28 | 2,3,5,6-tetramethylpyrazine | 10.2 |  |  |  |  |  |  |  |  |  |  |
| 29 | γ-terpinene | 9.35 |  |  |  |  |  |  |  |  |  |  |
| 30 | triacetin (common flavor carrier) | 9.12 |  |  |  |  | 173. |  |  |  |  |  |
| 31 | myrcene | 7.30 | 10.8 | 6.9 |  | 2.1 |  |  |  |  |  |  |
| 32 | decanal | 6.20 |  |  |  |  |  |  |  |  |  |  |
| 33 | 4-terpineol  | 6.01 |  |  |  |  |  |  |  |  |  |  |
| 34 | β-damascone | 5.91 |  |  |  |  |  |  |  | 22.9 |  |  |
| 35 | ethyl cinnamate | 5.82 | 5.2 | 5.3 | 2.3 | 40.8 |  |  |  |  |  |  |
| 36 | α-pinene | 4.78 | 3.1 | 1.9 |  |  |  |  |  |  |  |  |
| 37 | furfural | 4.73 |  |  |  |  | 29.9 | 2.8 |  |  |  | 6.2 |
| 38 | *E*-2-hexen-1-ol | 4.59 |  |  |  | 87.3 |  |  |  |  |  |  |
| 39 | γ-terpineol | 4.27 | 20.1 |  |  |  |  |  |  |  |  |  |
| 40 | ethyl acetate | 3.87 | 42.4 | 26.0 |  | 5.2 |  |  |  |  |  |  |
| 41 | menthone | 3.84 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Table S1.a (continued). |  |  |  |  |  |  |  |  |  |  |  |
| 42 | benzyl acetate | 3.32 | 15.2 | 12.8 |  | 7.6 |  |  | 11.6 |  | 6.1 |  |
| 43 | 1,4-cineole | 2.91 |  |  |  |  |  |  |  |  |  |  |
| 44 | β-ionone | 2.78 |  | 1.2 | 8.2 | 13.4 |  |  |  |  |  | 20.4 |
| 45 | cis-linalool oxide | 2.26 |  |  |  |  |  |  |  |  |  |  |
| 46 | 1-hexanol | 2.07 | 19.7 | 16.5 |  |  |  |  |  |  |  | 3.2 |
| 47 | *Z*-3-hexenyl acetate  | 1.99 | 16.0 |  |  | 3.6 |  |  |  |  |  |  |
| 48 | trans-linalool oxide  | 1.99 |  |  |  |  |  |  |  |  |  |  |
| 49 | fenchyl alcohol | 1.95 |  | 1.6 |  |  |  |  |  |  |  |  |
| 50 | amyl isovalerate | 1.87 | 23.5 | 12.0 |  |  |  |  |  |  |  |  |
| 51 | 2,3-pentanedione (acetyl propionyl) | 1.80 |  |  |  |  | 17.2 |  |  |  |  |  |
| 52 | isoamyl isovalerate | 1.65 | 21.8 | 9.5 |  |  |  |  |  |  |  |  |
| 53 | citronellal | 1.38 |  |  |  |  |  |  |  |  |  |  |
| 54 | menthyl acetate | 1.28 |  |  |  |  |  |  |  |  |  |  |
| 55 | neomenthol | 1.21 |  |  |  |  |  |  |  |  |  |  |
| 56 | 1-pentanol | 0.93 |  | 3.9 |  |  |  |  |  |  |  |  |
| 57 | 6-methyl-5-hepten-2-one | 0.78 |  |  |  |  |  |  |  |  |  |  |
| 58 | isoamyl butyrate | 0.75 |  |  |  |  |  |  |  |  |  |  |
| 59 | p-tolualdehyde | 0.75 |  |  |  |  |  |  |  |  |  |  |
| 60 | 2-methylbutyl acetate | 0.50 | 4.3 |  |  |  |  |  |  |  |  |  |
| 61 | ethyl anthranilate | 0.42 |  |  | 5.6 |  |  |  |  |  |  |  |
| 62 | dimethyl benzyl carbinyl butyrate | 0.39 | 5.3 | 2.2 |  |  |  |  |  |  |  |  |
| 63 | hexyl hexanoate | 0.16 | 3.0 |  |  |  |  |  |  |  |  |  |
| 64 | raspberry ketone methyl ether | 0.12 |  |  |  |  |  |  |  |  |  |  |
| 65 | 2,3-butanedione (“diacetyl”) | 0.00 |  |  |  |  |  |  |  |  |  |  |