

## SUPPLEMENTAL TABLES

**Brands Purchased In Each Country**

Country	Brand	Flavor	Nominal Nicotine (mg/ml)	Mean Nicotine (mg/ml)
United States	Vuse	Menthol	None	54.5
United States	Vuse	Original	None	58.6
United States	Vuse	Original	None	52.5
United States	Vuse	Original	None	22.1
United States	Vuse	Original	None	45.6
United States	Vuse	Mint	None	47.8
United States	Mark Ten XL	Classic	24	37.7
United States	Mark Ten XL	Menthol	40	36
United States	Mark Ten XL	Classic	40	35.8
United States	Blu	Classic Tobacco	24	19.3
United States	Blu	Classic Tobacco	24	24.6
United States	Blu	Classic Tobacco	24	25.8
United States	Blu	Classic Tobacco	24	24.6
United States	Blu	Glacier Mint	24	24.5
United States	Blu	Cherry Crush	24	25
United States	V2	Red Tobacco Flavor	18	12.3
United States	V2	Menthol	18	15.9
United States	V2	Red Tobacco Flavor	18	14.9
United States	My Start E-Liquid	Menthol	0	ND
United States	My Start E-Liquid	Menthol	0	ND
United States	My Start E-Liquid	Menthol	0	ND
United States	My Start E-Liquid	Menthol	6	6
United States	My Start E-Liquid	Menthol	6	5.5
United States	My Start E-Liquid	Menthol	6	5.4
United States	My Start E-Liquid	Menthol	11	10.2
United States	My Start E-Liquid	Menthol	11	10.5
United States	My Start E-Liquid	Menthol	11	10.2
United States	My Start E-Liquid	Menthol	18	16.7

United States	My Start E-Liquid	Menthol	18	17
United States	My Start E-Liquid	Menthol	18	17.2
United States	My Start E-Liquid	USA Mix, Full Flavor	0	ND
United States	My Start E-Liquid	USA Mix, Full Flavor	0	ND
United States	My Start E-Liquid	USA Mix, Full Flavor	0	ND
United States	My Start E-Liquid	USA Mix, Full Flavor	6	6.1
United States	My Start E-Liquid	USA Mix, Full Flavor	6	6
United States	My Start E-Liquid	USA Mix, Full Flavor	6	6.3
United States	My Start E-Liquid	USA Mix, Full Flavor	11	11.3
United States	My Start E-Liquid	USA Mix, Full Flavor	11	11.2
United States	My Start E-Liquid	USA Mix, Full Flavor	11	11.2
United States	My Start E-Liquid	USA Mix, Full Flavor	18	17.9
United States	My Start E-Liquid	USA Mix, Full Flavor	18	18.1
United States	My Start E-Liquid	USA Mix, Full Flavor	18	18.1
United States	My Start E-Liquid	Cherry Crush	0	ND
United States	My Start E-Liquid	Cherry Crush	0	ND
United States	My Start E-Liquid	Cherry Crush	0	ND
United States	My Start E-Liquid	Cherry Crush	6	5.8
United States	My Start E-Liquid	Cherry Crush	6	5.2
United States	My Start E-Liquid	Cherry Crush	6	5.4
United States	My Start E-Liquid	Cherry Crush	11	9.8
United States	My Start E-Liquid	Cherry Crush	11	10
United States	My Start E-Liquid	Cherry Crush	11	10.2
United States	My Start E-Liquid	Cherry Crush	18	16.2
United States	My Start E-Liquid	Cherry Crush	18	15.8
United States	My Start E-Liquid	Cherry Crush	18	15.9
Australia	Bake It Vapor	Nana Pie' (Banana)	0	ND
Australia	Frooty E-Liquid	Fresh Mango	0	ND
Australia	Liqua Premium Vape Liquid	Apple	0	ND
Australia	Liqua Premium Vape Liquid	Two Mints	0	ND
Australia	Liqua Premium Vape Liquid	American Blend	0	ND
Australia	Royale E-Juice	Apple	None	ND
Australia	Royale E-Juice	Menthol	None	ND
Australia	Royale E-Juice	B&H Flavor	None	ND
Australia	str8 Premium ejuice	Menthol	0	ND
Australia	Byron Bay Cloud Co.	Peaches & Pineapple	0	ND
Australia	MT Baker Vapor	Extreme Ice	None	ND

Australia	Clouds Down Under		0	ND
Australia	Cool Culture Royale		0	ND
Australia	Mount Baker Vapor	East Coast Tobacco	None	ND
Australia	Mount Baker Vapor	Thug Juice	None	ND
Canada	Kloud-E-Juice	Smooth Smoke	0	ND
Canada	PurELiquid	Cooling Menthol	0	ND
Canada	Mad Dog Juice	Cherry Garcia	0	ND
Canada	Naked 100 Brain Freeze	Menthol	0	ND
Canada	Naked 100	Tobacco	0	ND
Canada	Flavour Crafters	Black Cherry Tobacco	0	ND
Canada	Prizm	Menthol	0	ND
Canada	Blackwood Duke	Tobacco	0	ND
Canada	Darts Canadian	Tobacco	0	ND
Canada	Darts Canadian	Menthol	0	ND
England	Blu	Tobacco	18	18.8
England	Blu	Tobacco	18	18.1
England	Blu	Tobacco	18	18.5
England	E-Lites	Regular/TruTaste	24	14.9
England	E-Lites	Regular/TruTaste	24	15.5
England	E-Lites	Regular/TruTaste	24	14.7
England	Ten Motives		16	13.4
England	Ten Motives		16	8.3
England	Ten Motives		16	13.6
England	Vype		12	12.5
England	Vype		6	7.6
England	Vype		6	6.2
England	Vype		6	6
England	Vype		18	14
England	Vype		18	13.9
England	Vype		18	13.1
England	Vype		None	23.8
England	Vype		12	12.8
England	Vype		12	12.5
England	Vype		None	21.9
England	Vype		None	25.6
England	Vype		None	31.1
England	Vype		None	21

England	Vype		None	24.3
England	Vype		None	29.6
England	Liberty Flights	Tobacco	0	ND
England	Liberty Flights	Tobacco	6	5.3
England	Liberty Flights	Tobacco	12	7.2
England	Liberty Flights	Tobacco	18	11.1
England	Liberty Flights	Cherry	0	ND
England	Liberty Flights	Cherry	6	3.3
England	Liberty Flights	Cherry	12	7.3
England	Liberty Flights	Cherry	18	11.7
England	Liberty Flights	Menthol	0	ND
England	Liberty Flights	Menthol	0	ND
England	Liberty Flights	Menthol	6	3.8
England	Liberty Flights	Menthol	12	10.2
England	Liberty Flights	Menthol	18	11.8
England	Pure E-Liquid	Tobacco (Mab)	0	ND
England	Pure E-Liquid	Tobacco (Mab)	5	3.4
England	Pure E-Liquid	Tobacco (Mab)	10	6.9
England	Pure E-Liquid	Tobacco (Mab)	15	10.8
England	Pure E-Liquid	Cherry	0	ND
England	Pure E-Liquid	Cherry	0	ND
England	Pure E-Liquid	Cherry	5	3
England	Pure E-Liquid	Cherry	10	6.2
England	Pure E-Liquid	Cherry	15	14
England	Pure E-Liquid	Menthol	0	ND
England	Pure E-Liquid	Menthol	5	3.8
England	Pure E-Liquid	Menthol	10	10.6
England	Pure E-Liquid	Menthol	10	6.9
England	Pure E-Liquid	Menthol	15	11.7
England	Nicolites	Tobacco	16	12.3
England	Nicolites	Tobacco	16	8.7
England	Nicolites	Tobacco	16	1.6
England	Nicolites	Tobacco	16	8.6
England	Nicocig	Tobacco	16	8.5
England	Vapourdays	Cherry	18	11.2
England	Vapourdays	Menthol	18	118
England	Vapourdays	Menthol	0	ND

England	Vapourdays	Tobacco Blend	18	18
England	Vapourdays	Tobacco Blend	6	6.1
England	Vapourdays	Tobacco Blend	12	12
England	Vapourdays	Tobacco Blend	0	ND
England	Vapourdays	Cherry	12	12.8
England	Vapourdays	Cherry	0	ND
England	Vapourdays	Cherry	6	5.9
England	Vapourdays	Menthol	6	6
England	Vapourdays	Menthol	12	11.2
England	Ten Motives	Menthol	11	9.1
England	Ten Motives	Cherry	16	15.2
England	Ten Motives	Regular	11	9.5
England	Ten Motives	Regular	18	14.7
England	Blu	Tobacco	18	18.8
England	Ten Motives	Menthol	16	13.5
England	Ten Motives	Cherry	16	14.3
England	Ten Motives	Regular	16	13.3
England	Ten Motives	Menthol	16	13.6
England	Vype	Dark Cherry	18	18.8
England	Vype	Crisp Mint	18	19.3
England	Vype	Crisp Mint	18	18.8
England	Vype	Golden Tobacco	6	5.6
England	Ten Motives	Regular	18	14.4
England	Ten Motives	Regular	18	14.1
England	Ten Motives	Menthol	16	12
England	Vype	Dark Cherry	18	16.9
England	Blu	Tobacco	8	8.1
England	Blu	Tobacco	16	16.7
England	Blu	Tobacco	17	16.4
England	Ten Motives	Regular	18	14.9
England	Blu	Cherry	0	ND
England	Blu	Cherry	8	8.1
England	Blu	Menthol	8	8.1
England	Blu	Menthol	16	16.7
England	Blu	Menthol	18	17.2
England	Blu	Cherry	18	17.1
England	Blu	Tobacco	18	17.1

England	Blu	Menthol	18	16.8
England	Blu	Menthol	9	8.3
England	Blu	Cherry	9	8.8
England	Blu	Cherry	18	18
England	Blu	Tobacco	9	8.8
England	Vype	Crisp Mint	18	19.7
England	Blu	Tobacco	18	17.8
England	Blu	Menthol	18	18.3
England	Blu	Tobacco	9	8.3
England	Blu	Menthol	9	8.2
England	Logic	Light	12	8.2
England	E-Lites	Light	16	12.2
England	Logic	Lights	12	12.8
England	E-Lites	Regular	24	18.2
England	Ten Motives	Regular	16	12.7
England	E-Lites	Menthol	16	11.4
England	Elites	Menthol	16	12.1
England	Elites	Menthol	16	11.8
England	Logic	Tobacco	6	4.7
England	Logic	Cherry	6	4.6
England	Logic	Cherry	12	9.3
England	Logic	Tobacco	18	13.9
England	Logic	Cherry	6	4.3
England	Logic	Tobacco	6	4.7
England	E-Lites	Regular	24	18.6
England	Vype	Crisp Mint	36	31.2
England	Logic	Menthol	12	9.1
England	Logic	Tobacco	18	13.4
England	Logic	Cherry	12	8.9
England	Logic	Menthol	12	9.1
England	Vype	Dark Cherry	18	17.9
England	Vype	Dark Cherry	18	17.5
England	Vype	Dark Cherry	12	28.4
England	Vype	Golden Tobacco	18	18.36
England	Vype	Dark Cherry	6	5.9
England	Vype	Crisp Mint	6	5.9

England	Vype	Dark Cherry	6	6.1
England	Vype	Crisp Mint	6	5.7
England	Vype	Crisp Mint	0	5.5
England	Vype	Crisp Mint	6	12
England	Vype	Crisp Mint	12	7.3
England	Vype	Golden Tobacco	6	11.8
England	Vype	Golden Tobacco	12	5.9
England	Vype	Dark Cherry	6	11.3
England	Vype	Dark Cherry	12	11.8
England	Vype	Golden Tobacco	0	11.3
England	Vype	Golden Tobacco	12	11.6
England	Vype	Crisp Mint	12	11.9
England	Vype	Crisp Mint	0	13.3
England	Vype	Crisp Mint	12	17.4
England	Vype	Dark Cherry	0	5.7
England	Ten Motives	Regular	16	17.5
England	Logic	Tobacco	18	13.3
England	Vype	Dark Cherry	18	17.4
England	Vype	Golden Tobacco	6	5.7
England	Vype	Golden Tobacco	0	ND
England	Vype	Golden Tobacco	18	17.5
England	Vype	Dark Cherry	18	17
England	Vype	Dark Cherry	6	17.6
England	Vype	Dark Cherry	12	18.2
England	Vype	Golden Tobacco	0	18.3
England	Vype	Crisp Mint	18	17.4
England	Vype		18	19
England	Vype		18	19
England	Vype		18	19
England	Vype		18	19.3
England	Vype		18	18.9
England	Vype		18	19.1
England	Logic	Tobacco	12	9.3

**Five most commonly identified flavoring chemicals by country**

Country	Chemical	CAS #	Components	Occurrence	Potential Respiratory Irritant
<b>Australia (n=15)</b>	Levomenthol	2216-51-5	cooling, camphoreous, minty, clean, spicy	40.0%	X
	Menthol	1490-04-6	cooling, mentholic, minty	40.0%	X
	Maltol	118-71-8	sweet, cotton candy, caramellic with jammy fruity and berry	40.0%	X
	Vanillin	121-33-5	vanilla, vanillin, sweet, creamy, spicy, phenolic, milky	40.0%	
	Ethyl Vanillin	121-32-4	sweet, creamy, vanilla, smooth, caramellic	26.7%	X
<b>Canada (n=10)</b>	Vanillin	121-33-5	vanilla, vanillin, sweet, creamy, spicy, phenolic, milky	42.9%	
	Hydroxyacetone	116-09-6	sweet, slightly green, burnt	42.9%	
	Maple Lactone	765-70-8	sweet, maple, bready, caramellic with nutty nuances	42.9%	
	2-methyl-Butanoic acid	116-53-0	fruity, dirty, acidic with a dairy buttery and cheesy nuance	35.7%	
	Ethyl Acetate	141-78-6	etherial, fruity, sweet with a grape and cherry nuance	28.6%	
<b>England (n=166)</b>	Propyl Methyl Ketone	107-87-9	sweet, fruity and banana-like with a fermented nuance	98.4%	
	Isopropyl Methyl Ketone	563-80-4	Camphor	99.0%	
	Acetone Alcohol	116-09-6	sweet, slightly green, burnt	88.0%	
	Menthol	1490-04-6	cooling, mentholic, minty	65.1%	X
	Ethyl Acetate	141-78-6	etherial, fruity, sweet with a grape and cherry nuance	80.7%	
<b>US (n=54)</b>	Vanillin	121-33-5	vanilla, vanillin, sweet, creamy, spicy, phenolic, milky	55.6%	
	Maple Lactone	765-70-8	sweet, maple, bready, caramellic with nutty nuances	35.2%	
	Levomenthol	2216-51-5	cooling, camphoreous, minty, clean, spicy	31.5%	X
	Potato Pyrazine	14667-55-1	raw, musty, nutty, potato	29.6%	X
	Benzyl Alcohol	100-51-6	chemical, fruity, cherry, almond, balsamic, bitter	21.1%	X



