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Method Uncertainty Data (VIC)

Procedure	Determinant	Applicable Sample Types	Technique	Range	Measurement Uncertainty
VLM1	Acetic Acid	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	UV-vis spectrophotometric	0.10 - 1.0 g/L	± 0.06 g/L
VLM3	Fructose; Glucose	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	UV-vis spectrophotometric	All	± 0.60 g/L
VLM4	Malic Acid	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	UV-vis spectrophotometric	>0.05 g/L	± 0.21 g/L
VLM5	pH	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	Electrometric	All	± 0.07 pH units
VLM6	Sugars - Reducing	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	Rebelein Method; Titration	2.0 - 26.2 g/L	± 1.3 g/L
VLM8	Sulphur Dioxide	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	Aspiration; Titration	Free - All	± 3.2 mg/L
				Total - All	± 6.2 mg/L
VLM9	Titrate Acid	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	Titration	All	± 0.31 g/L
VLM11	Specific Gravity	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	Densitometer; Hydrometer	0.9900 - 1.1000	± 0.00035
VLM16	Sucrose	Alcoholic Beverages; Fruit and Fruit Products; Fruit juice concentrates	UV-vis spectrophotometric	>0.10 g/L	As per VLM3
VLM17	Citric Acid	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	UV-vis spectrophotometric	All	± 0.19 g/L
VLM22	Heat Stability	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	Turbidometry	All	ND**
VLM23	Cold Stability	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	Visual Examination	All	N/A
VLM25	Alcohol - Total Strength	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	Calculation	10 - 20 % v/v	Expanded Uncertainty: ± 0.1 % v/v (est)*
	Caloric Value	Alcoholic Beverages; Fruit juice concentrates; Fruit Juices	Calculation	50 - 150 kCal/100mL	Expanded Uncertainty: ± 1.5 % v/v (est)*
VLM26	Total Dry Extract	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	Densitometer; Calculation	Nomograph (SG < 1.025)	Repeatability: 1 g/L; Expanded Uncertainty: ± 2 g/L*
				Densitometer (20-40 g/L)	Repeatability: 0.18 g/L; Expanded Uncertainty: ± 0.36 g/L*
VLM27	Sorbic Acid	Alcoholic Beverages; Fruit Juice Concentrates; Fruit Juices	UV-vis spectrophotometric	10 - 70 mg/L	ND**
				70 - 300 mg/L	Repeatability: 10mg/L; Expanded Uncertainty: ±0.1x, where x is the sample concentration of
VLM33	Alcohol	Alcoholic Beverages; Beer; Fortified; Fruit Juice Concentrates; Fruit Juices; Liqueurs; Must; Spirits; Wine	Near Infra-red spectroscopy (NIR)	0 - 20 % v/v	± 0.09% v/v
VLM40	Calcium; Copper; Iron; Potassium; Sodium	Alcoholic Beverages	ICP-OES	Calcium (50 - 100 mg/L)	± 5.8 mg/L
				Copper (0.1 - 3.3 mg/L)	± 0.06 mg/L
				Iron (0.3 - 2.0 mg/L)	± 0.15 mg/L
				Potassium (500-1000 mg/L)	± 50 mg/L
				Sodium (25-100 mg/L)	± 6.9 mg/L

* Data under review.

** No data currently available.