

## Reference Material and Inter-laboratory Quality Control Materials Product Summary

August 2017

Version: 1

**Assigned Values:** Values provided have been generated from an Inter-Laboratory Proficiency Programme (ILPP). The reference material values provided in this summary are the mean of the results after the exclusion of statistical outliers. The Assigned Range provided for the Inter-laboratory QC Materials is the range of test values available for purchase. Each Reference and QC Material comes with a Data Summary Sheet.

**Missing Values and Available Tests:** For Reference Materials where property values do not meet the statistical criteria, the summary values have not been provided. For this reason, not all tests will be available for every Reference Material of the same matrix. However, if there are 3 or more data points available, an Assigned Value will be provided with the corresponding QC material.

**Sample Sizes:** Available sample sizes are shown for reference materials.

*Note: When ordering QC materials, please quote both the Product ID AND the process run*

### QC Material: Apple Juice - Apple Juice

Matrix: Apple Juice	Product ID	8506-QC	8641-QC
	Process Run	PR5420	PR5771
	Expiry Date	17 Dec 17	5 Apr 18
	Sample Size(s)	350mL	350mL
	Ascorbic Acid (mg/100 mL)	53.8	50.5
	Brix (°Brix)	11.3	11.2
	pH (pH units)	3.56	3.50
	Sorbic acid (mg/L)	1.38	
	Titratable Acidity (g/100 mL)	0.333	0.335

**QC Material: Carbonated Drinks - Dark Alcoholic**

Matrix: Carbonated Drinks	Product ID	8118-QC	8603-QC
	Process Run	PR5262	PR5705
	Expiry Date	29 Nov 17	30 Nov 17
	Sample Size(s)	330mL	330mL
	Acidity (%v/v citric acid )	0.121	0.0980
	Actual Alcohol Strength (%v/v)	4.71	4.76
	Benzoic Acid (mg/L)	188	160
	Brix (°Brix @ 20°C)	10.3	10.2
	Glucose + Fructose (g/L)		70.2
	pH (pH units)	3.02	2.70
	Specific Gravity (g/ml @ 20°C)	1.03	1.03
	Sucrose (g/L)		17.0
	Total Sugar (g/L)		89.0

**QC Material: Carbonated Drinks - Light Alcoholic**

Matrix: Carbonated Drinks	Product ID	8119-QC	8604-QC
	Process Run	PR5262	PR5705
	Expiry Date	26 Aug 17	30 Nov 17
	Sample Size(s)	330mL	330mL
	Acidity (%v/v citric acid )	0.243	0.245
	Actual Alcohol Strength (%v/v)	4.84	4.61
	Benzoic Acid (mg/L)	152	
	Brix (°Brix @ 20°C)	7.96	7.22
	Glucose + Fructose (g/L)		38.0
	pH (pH units)	2.94	3.48
	Specific Gravity (g/ml @ 20°C)	1.02	1.01
	Sucrose (g/L)		7.25
	Total Sugar (g/L)		45.5

**QC Material: Carbonated Drinks - Dark Non-Alcoholic**

Matrix: Carbonated Drinks	Product ID	8120-QC	8605-QC
	Process Run	PR5262	PR5705
	Expiry Date	23 Sep 17	30 Nov 17
	Sample Size(s)	330mL	330mL
	Acidity (%v/v citric acid )	0.132	0.115
	Benzoic Acid (mg/L)	140	
	Brix (°Brix @ 20°C)	11.6	12.3
	Glucose + Fructose (g/L)		124
	pH (pH units)	3.20	2.55
	Sorbic Acid (mg/L)	219	
	Specific Gravity (g/ml @ 20°C)	1.05	1.05
	Sucrose (g/L)		5.54
	Total Sugar (g/L)		128

**QC Material: Carbonated Drinks - Light Non-Alcoholic**

Matrix: Carbonated Drinks	Product ID	8121-QC	8606-QC
	Process Run	PR5262	PR5705
	Expiry Date	1 Sep 17	30 Nov 17
	Sample Size(s)	330mL	330mL
	Acidity (%v/v citric acid )	0.428	0.290
	Benzoic Acid (mg/L)	318	140
	Brix (°Brix @ 20°C)	11.4	11.4
	Glucose + Fructose (g/L)		77.8
	pH (pH units)	2.71	3.09
	Sorbic Acid (mg/L)		130
	Specific Gravity (g/ml @ 20°C)	1.05	1.05
	Sucrose (g/L)		39.2
	Total Sugar (g/L)		117

**QC Material: Grape Juice - Grape Juice**

<b>Matrix: Grape Juice</b>	Product ID	8208-QC
	Process Run	PR5406
	Expiry Date	28 Feb 18
	Sample Size(s)	750mL
	Glucose + Fructose (g/L)	159
	Malic Acid (g/L)	4.58
	pH (pH units)	2.86
	Specific Gravity (SG @ 20°C)	1.07
	Titr Acidity (g/L as H2T)	8.82
	TotSolSolids (g/100g or °Brix)	16.4
	Yeast Assimilable N (mg-N /L)	125

**QC Material: Orange Juice - Orange Juice**

<b>Matrix: Orange Juice</b>	Product ID	8508-QC	8643-QC
	Process Run	PR5420	PR5771
	Expiry Date	8 Dec 17	28 Feb 18
	Sample Size(s)	350mL	350mL
	Ascorbic Acid (mg/100 mL)	60.0	59.1
	Brix (°Brix)	9.78	9.62
	pH (pH units)	3.85	3.84
	Sorbic Acid (mg/L)	58.0	29.0
	Titrateable Acidity (g/100 mL)	0.685	0.600

**QC Material: Wine - Red Wine**

<b>Matrix: Wine</b>	<b>Product ID</b>	<b>8663-QC</b>	<b>8258-QC</b>
	<b>Process Run</b>	PR5777	PR5406
	<b>Expiry Date</b>	26 Oct 17	28 Feb 18
	<b>Sample Size(s)</b>	750mL	750mL
	<b>Acetic Acid (g/L)</b>	0.620	0.570
	<b>Alcohol (%v/v)</b>	13.6	12.4
	<b>Carbon Dioxide (g/L)</b>	0.592	0.850
	<b>Citric Acid (g/L)</b>	0.117	0.0180
	<b>Clarity (NTU)</b>	0.260	1.28
	<b>Fructose + Glucose (g/L)</b>	0.650	1.13
	<b>Fructose (g/L)</b>	0.410	0.595
	<b>Glucose (g/L)</b>	0.270	0.547
	<b>Heat Stability (St/Unst)</b>	St	
	<b>Malic Acid (g/L)</b>	0.150	0.0342
	<b>pH (pH units)</b>	3.54	3.74
	<b>Reducing Sugars (g/L)</b>	2.15	3.15
	<b>Sulphur Dioxide free (mg/L)</b>	24.0	
	<b>Sulphur Dioxide total (mg/L)</b>	74.0	
	<b>Titrateable Acidity (g/L)</b>	5.73	5.30
	<b>Tartrate Stab (St/Unst)</b>	St	
	<b>Total Dry Extract (g/L)</b>	26.6	30.5
	<b>Tot Sol Solids (SG at 20°C)</b>	0.993	0.996
	<b>Tot Sol Solids (°Brix at 20°C)</b>	7.80	7.60
	<b>Total Sugars (g/L)</b>	0.670	1.19
	<b>Volatile Acidity (g/L)</b>	0.585	0.540

**QC Material: Wine - White Wine**

<b>Matrix: Wine</b>	<b>Product ID</b>	<b>8662-QC</b>	<b>8259-QC</b>
	<b>Process Run</b>	PR5777	PR5406
	<b>Expiry Date</b>	26 Oct 17	28 Feb 18
	<b>Sample Size(s)</b>	750mL	750mL
	<b>Acetic Acid (g/L)</b>	0.316	0.323
	<b>Alcohol (%v/v)</b>	13.4	9.93
	<b>Carbon Dioxide (g/L)</b>	1.20	1.48
	<b>Citric Acid (g/L)</b>	0.303	0.160
	<b>Clarity (NTU)</b>	0.250	0.238
	<b>Fructose + Glucose (g/L)</b>	9.10	45.1
	<b>Fructose (g/L)</b>	8.04	35.8
	<b>Glucose (g/L)</b>	1.12	9.20
	<b>Heat Stability (St/Unst)</b>	St	
	<b>KHT Saturation Temp (°C)</b>	12.6	
	<b>Malic Acid (g/L)</b>	2.52	2.82
	<b>pH (pH units)</b>	3.52	3.10
	<b>Reducing Sugars (g/L)</b>	10.2	45.1
	<b>Turbidity Increase (t2-t1 NTU)</b>	0.825	
	<b>Sulphur Dioxide free (mg/L)</b>	36.0	
	<b>Sulphur Dioxide total (mg/L)</b>	135	
	<b>Titratable Acidity (g/L)</b>	5.25	7.29
	<b>Tartrate Stab (St/Unst)</b>	St	
	<b>Total Dry Extract (g/L)</b>	28.7	65.9
	<b>Tot Sol Solids (SG at 20°C)</b>	0.994	1.01
	<b>Tot Sol Solids (°Brix at 20°C)</b>	7.60	9.70
	<b>Total Sugars (g/L)</b>	8.98	44.4
	<b>Volatile Acidity (g/L)</b>	0.305	0.310