

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

April 2024

Version: 4

**Assigned Values:** Values provided have been generated from Inter-Laboratory Proficiency Programmes (ILPP) or from data provided by laboratories for the purpose of characterisation. 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.

*Ordering Reference Materials and/or Quality Control Materials, acknowledges you have read and understood our terms and conditions. These can be found at: <https://www.global-proficiency.com/terms-conditions>*

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

### QC Material: Anhydrous Milk Fat - Anhydrous Milk Fat

Matrix: Anhydrous Milk Fat	Product ID Process Run Expiry Date Sample Size	14798-QC PR11326 1 Oct 24 100mL	14800-QC PR11326 1 Oct 24 100mL	14799-QC PR11253 25 Jul 24 100mL	14797-QC PR11253 30 Aug 24 100mL
	<b>Alkalinity (mg/kg)</b>	4	4	4	4
	<b>Carotene (mg/kg)</b>	9.5	9.5	8.7	9.5
	<b>Free Fatty Acids (%)</b>	0.11	0.13	0.11	0.12
	<b>Moisture KF (%)</b>	0.06	0.06	0.06	0.06
	<b>Peroxide Value (meq O<sub>2</sub>/kg)</b>	0.06	0.03	0.06	0.06

**QC Material: Milk Powders for Bulk Density - Buttermilk Powder (100 taps)**

<b>Matrix: Milk Powders for Bulk Density</b>	Product ID	14641-QC
	Process Run	PR11253
	Expiry Date	19 Jun 24
	Sample Size	160g
	<b>Bulk Density 100 Taps (g/ml)</b>	0.69

**QC Material: Milk Powders for Bulk Density - Instant SMP (100 taps)**

<b>Matrix: Milk Powders for Bulk Density</b>	Product ID	14643-QC
	Process Run	PR11253
	Expiry Date	19 Jun 24
	Sample Size	120g
	<b>Bulk Density 100 Taps (g/ml)</b>	0.75

**QC Material: Milk Powders for Bulk Density - Instant WMP (100 taps)**

<b>Matrix: Milk Powders for Bulk Density</b>	Product ID	14645-QC
	Process Run	PR11326
	Expiry Date	21 Aug 24
	Sample Size	120g
	<b>Bulk Density 100 Taps (g/ml)</b>	0.51

**QC Material: Protein Powders for Bulk Density - Calcium Caseinate (35 taps test only)**

<b>Matrix: Protein Powders for Bulk Density</b>	<b>Product ID</b>	14652-QC
	<b>Process Run</b>	PR11375
	<b>Expiry Date</b>	26 Sep 24
	<b>Sample Size</b>	85g
	<b>Bulk Density 35 Taps (g/ml)</b>	0.37

**Reference Material: Butter - Salted Butter**

<b>Matrix: Butter</b>	<b>Product ID</b>	898-C-1
	<b>Expiry Date</b>	26 Sep 24
	<b>Sample Size</b>	55g
	<b>Fat by Difference (%)</b>	81.81
	<b>Moisture Oven/Hot Plate (%)</b>	15.35
	<b>SNF (%)</b>	2.83

**QC Material: Butter - Salted Butter**

<b>Matrix: Butter</b>	Product ID	14632-QC
	Process Run	PR11375
	Expiry Date	26 Sep 24
	Sample Size	55g
	<b>Fat by Difference (%)</b>	81.76
	<b>Moisture Oven/Hot Plate (%)</b>	15.36
	<b>Salt (%)</b>	1.84
	<b>SNF (%)</b>	2.84

**QC Material: Butter for pH testing - Lactic Butter**

<b>Matrix: Butter for pH testing</b>	Product ID	14635-QC
	Process Run	PR11326
	Expiry Date	21 Aug 24
	Sample Size	110g
	<b>pH (pH units)</b>	4.76

**Reference Material: Casein - Lactic Acid Casein (30 Mesh)**

<b>Matrix:</b> Casein	<b>Product ID</b>	862-C-1
	<b>Expiry Date</b>	7 Jan 25
	<b>Sample Size</b>	150g
	<b>Ash (%)</b>	1.75
	<b>Fat SBR (%)</b>	1.0
	<b>Free Acidity (ml/g)</b>	0.14
	<b>Lactose (%)</b>	0.09
	<b>Moisture 102°C (%)</b>	11.13
	<b>Protein Kjeldahl (%)</b>	87.17

**QC Material: Casein - Lactic Acid Casein (30 Mesh)**

<b>Matrix:</b> Casein	<b>Product ID</b>	13673-QC
	<b>Process Run</b>	PR11095
	<b>Expiry Date</b>	7 Jan 25
	<b>Sample Size</b>	150g
	<b>Ash (%)</b>	1.78
	<b>Fat SBR (%)</b>	0.9
	<b>Free Acidity (ml/g)</b>	0.15
	<b>Lactose (%)</b>	0.09
	<b>Moisture 102°C (%)</b>	11.15
	<b>Part. Size Pass 1st Sieve (%)</b>	99.9
	<b>Part. Size Pass 2nd Sieve (%)</b>	53.4
	<b>pH (pH units)</b>	4.4
	<b>Protein Kjeldahl (%)</b>	87.27

**Reference Material: Casein - Mineral Acid Casein (30 Mesh)**

<b>Matrix: Casein</b>	<b>Product ID</b>	861-C-1
	<b>Expiry Date</b>	9 Aug 25
	<b>Sample Size</b>	150g
	<b>Fat SBR (%)</b>	0.5
	<b>Free Acidity (ml/g)</b>	0.07
	<b>pH (pH units)</b>	4.3
	<b>Protein Kjeldahl (%)</b>	90.23

**QC Material: Casein - Mineral Acid Casein (30 Mesh)**

<b>Matrix: Casein</b>	<b>Product ID</b>	13674-QC
	<b>Process Run</b>	PR11095
	<b>Expiry Date</b>	9 Aug 25
	<b>Sample Size</b>	150g
	<b>Ash (%)</b>	1.79
	<b>Fat SBR (%)</b>	0.5
	<b>Free Acidity (ml/g)</b>	0.08
	<b>Lactose (%)</b>	0.02
	<b>Moisture 102°C (%)</b>	8.92
	<b>Part. Size Pass 1st Sieve (%)</b>	99.8
	<b>Part. Size Pass 2nd Sieve (%)</b>	45.1
	<b>pH (pH units)</b>	4.3
	<b>Protein Kjeldahl (%)</b>	90.35

**QC Material: Caseinate - Calcium Caseinate**

<b>Matrix: Caseinate</b>	Product ID	14656-QC
	Process Run	PR11215
	Expiry Date	2 Apr 26
	Sample Size	80g
	<b>Ash (%)</b>	3.91
	<b>Lactose (%)</b>	0.06
	<b>Moisture 102°C (%)</b>	5.11
	<b>pH 5% Solution (pH units)</b>	7.03
	<b>Protein Kjeldahl (%)</b>	91.69

**Reference Material: Caseinate - Sodium Caseinate**

<b>Matrix: Caseinate</b>	Product ID	900-C-1
	Expiry Date	18 May 26
	Sample Size	80g
	<b>Ash (%)</b>	3.65
	<b>pH 5% Solution (pH units)</b>	6.75
	<b>Protein Kjeldahl (%)</b>	92.05

**QC Material: Caseinate - Sodium Caseinate**

<b>Matrix: Caseinate</b>	Product ID	14657-QC
	Process Run	PR11215
	Expiry Date	18 May 26
	Sample Size	80g
	<b>Ash (%)</b>	3.61
	<b>Lactose (%)</b>	0.04
	<b>Moisture 102°C (%)</b>	5.12
	<b>pH 5% Solution (pH units)</b>	6.75
	<b>Protein Kjeldahl (%)</b>	91.99

**Reference Material: Cheese - Cheddar Cheese**

<b>Matrix:</b> <b>Cheese</b>	<b>Product ID</b>	896-C-1
	<b>Expiry Date</b>	4 Jul 24
	<b>Sample Size</b>	75g
	<b>Fat SBR (%)</b>	35.13
	<b>Moisture 105°C (%)</b>	36.1
	<b>pH (pH units)</b>	5.12
	<b>Salt (%)</b>	1.72

**QC Material: Cheese - Cheddar Cheese**

<b>Matrix:</b> <b>Cheese</b>	<b>Product ID</b>	14663-QC
	<b>Process Run</b>	PR11326
	<b>Expiry Date</b>	4 Jul 24
	<b>Sample Size</b>	75g
	<b>Calcium (mmol/kg)</b>	173
	<b>Fat SBR (%)</b>	35.21
	<b>Moisture 105°C (%)</b>	35.9
	<b>pH (pH units)</b>	5.11
	<b>Protein (%)</b>	24.06
	<b>Salt (%)</b>	1.72



**QC Material: Functional Powders - Instant WMP**

Matrix: Functional Powders	Product ID	14676-QC	14674-QC
	Process Run	PR11326	PR11326
	Expiry Date	21 Aug 24	21 Aug 24
	Sample Size	120g	120g
	Coffee Sediment (mL )	0.5	0.4
	Cold SDP 25°C (A-E)	C	C
	Dispersibility (1_7)	2	2
	Sediment 85°C (mL)	0.2	0.2
	Wettability 25°C (secs )	5	5

**QC Material: Lactose - Edible Lactose**

Matrix: Lactose	Product ID	13698-QC
	Process Run	PR10495
	Expiry Date	8 Jun 25
	Sample Size	80g
	Moist LOD (%)	0.03
	pH 10% solution (pH units)	4.53
	Total Moisture KF (%)	5.00

**QC Material: Lactose - Pharmaceutical Lactose**

Matrix: Lactose	Product ID	13699-QC
	Process Run	PR10495
	Expiry Date	13 Jun 25
	Sample Size	80g
	Moist LOD (%)	0.05
	pH 10% solution (pH units)	4.32
	Total Moisture KF (%)	5.07

**Reference Material: Powders for Micronutrients - WPC80 (Cheese)**

<b>Matrix: Powders for Micronutrients</b>	<b>Product ID</b>	812-C-1	891-C-1
	<b>Expiry Date</b>	11 May 25	7 Mar 26
	<b>Sample Size</b>	30g	30g
	<b>Calcium (mg/100g)</b>	305	
	<b>Chloride (mg/100g)</b>	61	50
	<b>Copper (mg/kg)</b>		1.16
	<b>Iron (mg/kg)</b>	11.0	12.9
	<b>Magnesium (mg/100g)</b>	50.9	52.3
	<b>Phosphorus (mg/100g)</b>	438	467
	<b>Potassium (mg/100g)</b>	250	293
	<b>Sodium (mg/100g)</b>	1145	1034
	<b>Zinc (mg/kg)</b>		4.1

**QC Material: Powders for Micronutrients - WPC80 (Cheese)**

<b>Matrix: Powders for Micronutrients</b>	<b>Product ID</b>	13705-QC	14687-QC
	<b>Process Run</b>	PR10628	PR11326
	<b>Expiry Date</b>	11 May 25	7 Mar 26
	<b>Sample Size</b>	30g	30g
	<b>Calcium (mg/100g)</b>	314	295
	<b>Chloride (mg/100g)</b>	56	47
	<b>Copper (mg/kg)</b>	1.11	1.18
	<b>Iodine (µg/100gm)</b>	10	10
	<b>Iron (mg/kg)</b>	11.3	13.1
	<b>Magnesium (mg/100g)</b>	51.4	53.4
	<b>Phosphorus (mg/100g)</b>	447	467
	<b>Potassium (mg/100g)</b>	250	298
	<b>Sodium (mg/100g)</b>	1119	1054
	<b>Zinc (mg/kg)</b>	3.4	4.5

**Reference Material: Powders for Micronutrients - Instant WMP**

<b>Matrix: Powders for Micronutrients</b>	<b>Product ID</b>	762-C-1	813-C-1	892-C-1
	<b>Expiry Date</b>	6 Nov 24	7 Apr 25	7 Apr 25
	<b>Sample Size</b>	30g	30g	30g
	<b>Calcium (mg/100g)</b>		765	
	<b>Chloride (mg/100g)</b>		572	555
	<b>Copper (mg/kg)</b>	0.24	0.15	
	<b>Iron (mg/kg)</b>	1.7	108.9	
	<b>Magnesium (mg/100g)</b>	72.2		74.6
	<b>Manganese (µg/100g)</b>	22		28
	<b>Phosphorus (mg/100g)</b>	655	590	586
	<b>Potassium (mg/100g)</b>	1044	806	801
	<b>Sodium (mg/100g)</b>	210	225	220
	<b>Zinc (mg/kg)</b>			50.1

**QC Material: Powders for Micronutrients - Instant WMP**

<b>Matrix: Powders for Micronutrients</b>	<b>Product ID</b>	13703-QC	14683-QC	14682-QC
	<b>Process Run</b>	PR10628	PR11326	PR10755
	<b>Expiry Date</b>	7 Apr 25	7 Apr 25	9 Oct 25
	<b>Sample Size</b>	30g	30g	30g
	<b>Calcium (mg/100g)</b>	777	789	788
	<b>Chloride (mg/100g)</b>	571	552	577
	<b>Copper (mg/kg)</b>	0.15	0.13	0.24
	<b>Iodine (µg/100gm)</b>	42	36	
	<b>Iron (mg/kg)</b>	109.5	109.3	1.4
	<b>Magnesium (mg/100g)</b>	76.9	75.1	70.0
	<b>Manganese (µg/100g)</b>	29	29	22
	<b>Phosphorus (mg/100g)</b>	599	584	631
	<b>Potassium (mg/100g)</b>	806	805	999
	<b>Sodium (mg/100g)</b>	226	223	204
	<b>Zinc (mg/kg)</b>	51.0	50.5	24.7

**Reference Material: Powders for Micronutrients - WPC80 (Mineral Acid)**

Matrix: Powders for Micronutrients	Product ID	761-C-1
	Expiry Date	24 Nov 24
	Sample Size	30g
	Calcium (mg/100g)	354
	Chloride (mg/100g)	105
	Copper (mg/kg)	0.51
	Iron (mg/kg)	3.3
	Magnesium (mg/100g)	22.8
	Manganese (µg/100g)	11
	Potassium (mg/100g)	1926
	Sodium (mg/100g)	38
	Zinc (mg/kg)	15.8

**QC Material: Powders for Micronutrients - WPC80 (Mineral Acid)**

Matrix: Powders for Micronutrients	Product ID	14685-QC
	Process Run	PR10755
	Expiry Date	16 Sep 25
	Sample Size	30g
	Calcium (mg/100g)	353
	Chloride (mg/100g)	112
	Copper (mg/kg)	0.58
	Iron (mg/kg)	2.7
	Magnesium (mg/100g)	21.8
	Phosphorus (mg/100g)	312
	Potassium (mg/100g)	1685
	Sodium (mg/100g)	39
	Zinc (mg/kg)	15.9

**Reference Material: Powders for Micronutrients - Skim Milk Powder**

<b>Matrix: Powders for Micronutrients</b>	<b>Product ID</b>	763-C-1	893-C-1
	<b>Expiry Date</b>	26 Dec 24	15 Mar 26
	<b>Sample Size</b>	30g	30g
	<b>Calcium (mg/100g)</b>	1189	1084
	<b>Chloride (mg/100g)</b>	1183	761
	<b>Copper (mg/kg)</b>	0.23	0.19
	<b>Iron (mg/kg)</b>	1.5	
	<b>Magnesium (mg/100g)</b>	118.0	104.2
	<b>Manganese (µg/100g)</b>	26	23
	<b>Phosphorus (mg/100g)</b>	971	808
	<b>Potassium (mg/100g)</b>	1871	1190
	<b>Sodium (mg/100g)</b>	385	
	<b>Zinc (mg/kg)</b>	34.5	34.3

**QC Material: Powders for Micronutrients - Skim Milk Powder**

Matrix: Powders for Micronutrients	Product ID	14679-QC	14680-QC
	Process Run	PR10755	PR11326
	Expiry Date	13 Oct 25	15 Mar 26
	Sample Size	30g	30g
	Calcium (mg/100g)	1200	1093
	Chloride (mg/100g)	1006	758
	Copper (mg/kg)	0.45	0.19
	Iodine (µg/100gm)		61
	Iron (mg/kg)	1.5	2.0
	Magnesium (mg/100g)	112.6	105.5
	Manganese (µg/100g)	30	25
	Phosphorus (mg/100g)	1018	803
	Potassium (mg/100g)	1790	1202
	Sodium (mg/100g)	346	297
	Zinc (mg/kg)	34.8	34.6

**Reference Material: Milk Powder - Buttermilk Powder**

Matrix: Milk Powder	Product ID	764-C-1
	Expiry Date	11 Sep 24
	Sample Size	80g
	Moisture 102°C (%)	3.15
	Protein Kjeldahl (%)	30.38



**QC Material: Milk Powder - Buttermilk Powder**

Matrix: Milk Powder	Product ID	12982-QC
	Process Run	PR11326
	Expiry Date	11 Sep 24
	Sample Size	80g
	Fat RG (%)	8.36
	Insolubility Index 24°C (mL)	0.09
	Moisture 102°C (%)	3.09
	Moisture Reference Dryer (%)	3.20
	Protein Kjeldahl (%)	30.26
	Titrateable Acidity (%)	0.110

**Reference Material: Milk Powder - Skim Milk Powder**

Matrix: Milk Powder	Product ID	811-C-1	782-C-1	837-C-1	858-C-1	872-C-1
	Expiry Date	28 Feb 25	28 Mar 25	26 Oct 25	18 Nov 25	14 Jan 26
	Sample Size	80g	80g	80g	80g	80g
	Fat RG (%)	0.85	0.69	0.73	0.72	0.97
	Moisture 102°C (%)	3.79	3.87		3.68	
	pH (pH units)	6.72	6.66	6.77	6.76	6.65
	Protein Kjeldahl (%)	32.54	32.73	32.68	32.82	32.63
	WPNI (mg/g)	6.5	3.6		3.6	6.2

**QC Material: Milk Powder - Skim Milk Powder**

Matrix: Milk Powder	Product ID	13731-QC	13729-QC	13732-QC	14691-QC	14692-QC
	Process Run	PR10628	PR11326	PR10923	PR11024	PR11155
	Expiry Date	28 Feb 25	28 Mar 25	26 Oct 25	18 Nov 25	14 Jan 26
	Sample Size	80g	80g	80g	80g	80g
	<b>Fat RG (%)</b>	0.88	0.68	0.72		0.97
	<b>Insolubility Index 24°C (mL)</b>	0.09	0.10	0.08	0.10	0.09
	<b>Moisture 102°C (%)</b>	3.78	3.77	3.80		3.73
	<b>Moisture Reference Dryer (%)</b>	3.93	3.85	3.84	3.67	3.77
	<b>pH (pH units)</b>	6.72	6.68	6.77		6.64
	<b>Protein Kjeldahl (%)</b>	32.54	32.59	32.72	32.89	32.56
	<b>Titrateable Acidity (%)</b>	0.098	0.099	0.099		0.127
	<b>WPNI (mg/g)</b>	6.5	3.7	3.8	3.7	6.4

**QC Material: Milk Powder - Skim Milk Powder**

Matrix: Milk Powder	Product ID	13785-QC
	Process Run	PR11186
	Expiry Date	9 Nov 24
	Sample Size	30g
	<b>RDW WPNI Low Heat SMP (mg/g)</b>	6.44

**Reference Material: Milk Powder - Whole Milk Powder**

Matrix: Milk Powder	Product ID	882-C-1	835-C-1	884-C-1	883-C-1
	Expiry Date	7 Sep 24	16 Oct 24	27 Feb 25	9 Mar 25
	Sample Size	80g	80g	80g	80g
	Ash (%)	4.71	5.85	4.93	4.49
	Fat RG (%)	28.10	26.40	28.00	26.40
	Free Fat - in powder (%)	1.41	0.77	1.70	0.45
	Moisture 102°C (%)			2.80	2.93
	Moisture KF (%)	3.53			3.28
	pH (pH units)		6.71	6.74	6.77
	Protein Kjeldahl (%)	23.35	24.35	23.54	24.53
	WPNI (mg/g SNF)	1.9	2.3	3.1	3.8

**QC Material: Milk Powder - Whole Milk Powder**

Matrix: Milk Powder	Product ID	14706-QC	13743-QC	14704-QC	14705-QC
	Process Run	PR11253	PR10923	PR11253	PR11253
	Expiry Date	7 Sep 24	16 Oct 24	27 Feb 25	9 Mar 25
	Sample Size	80g	80g	80g	80g
	Ash (%)	4.71	5.86	4.93	4.50
	Fat RG (%)	28.10	26.37		26.43
	Free Fat - in powder (%)	1.41	0.76	1.70	0.47
	Insolubility Index 24°C (mL)	0.35	0.29	0.15	0.10
	Moisture 102°C (%)	3.16	2.80		2.91
	Moisture KF (%)	3.54	3.02	3.17	3.30
	Moisture Reference Dryer (%)	3.25	2.86	2.88	3.00
	pH (pH units)	6.75	6.73	6.74	6.76
	Protein Kjeldahl (%)	23.35	24.35		24.53
	Titrateable Acidity (%)	0.088	0.102	0.085	0.078
	WPNI (mg/g SNF)	2.0	2.1	3.0	3.6

**Reference Material: Milk Protein Concentrate - MPC85**

<b>Matrix: Milk Protein Concentrate</b>	<b>Product ID</b>	839-C-1
	<b>Expiry Date</b>	2 Aug 24
	<b>Sample Size</b>	80g
	<b>Ash (%)</b>	6.92
	<b>Fat SBR (%)</b>	1.26
	<b>Lactose (%)</b>	4.55
	<b>Moisture 102°C (%)</b>	5.52
	<b>Protein Kjeldahl (%)</b>	81.71

**QC Material: Milk Protein Concentrate - MPC85**

<b>Matrix: Milk Protein Concentrate</b>	<b>Product ID</b>	13714-QC
	<b>Process Run</b>	PR10923
	<b>Expiry Date</b>	2 Aug 24
	<b>Sample Size</b>	80g
	<b>Ash (%)</b>	6.95
	<b>Fat SBR (%)</b>	1.27
	<b>Lactose (%)</b>	4.50
	<b>Moisture 102°C (%)</b>	5.63
	<b>pH 5% Solution (pH units)</b>	7.02
	<b>Protein Kjeldahl (%)</b>	82.04

**Reference Material: Milk Protein Concentrate - MPI**

Matrix: Milk Protein Concentrate	Product ID	838-C-1
	Expiry Date	8 Aug 24
	Sample Size	80g
	Ash (%)	6.62
	Fat SBR (%)	1.26
	pH 5% Solution (pH units)	7.05
	Protein Kjeldahl (%)	85.92

**QC Material: Milk Protein Concentrate - MPI**

Matrix: Milk Protein Concentrate	Product ID	13716-QC
	Process Run	PR10923
	Expiry Date	8 Aug 24
	Sample Size	80g
	Ash (%)	6.63
	Fat SBR (%)	1.28
	Lactose (%)	1.07
	Moisture 102°C (%)	5.78
	pH 5% Solution (pH units)	7.05
	Protein Kjeldahl (%)	86.14

**QC Material: Vitamin Milk Powders - Instant SMP**

<b>Matrix: Vitamin Milk Powders</b>	<b>Product ID</b>	14695-QC
	<b>Process Run</b>	PR11155
	<b>Expiry Date</b>	1 Nov 24
	<b>Sample Size</b>	30g
	<b>Vitamin A (µg/100g)</b>	1110
	<b>Vitamin C (mg/100g)</b>	10.2

**Reference Material: Vitamin Milk Powders - Instant WMP**

<b>Matrix: Vitamin Milk Powders</b>	<b>Product ID</b>	870-C-1	871-C-1
	<b>Expiry Date</b>	1 Nov 24	1 Nov 24
	<b>Sample Size</b>	30g	30g
	<b>Vitamin C (mg/100g)</b>	56.8	64.3

**QC Material: Vitamin Milk Powders - Instant WMP**

Matrix: Vitamin Milk Powders	Product ID	14700-QC	14698-QC
	Process Run	PR11155	PR11155
	Expiry Date	1 Nov 24	1 Nov 24
	Sample Size	30g	30g
	Vitamin A (µg/100gm)	864	391
	Vitamin C (mg/100g)	55.8	63.2

**QC Material: Vitamin Milk Powders - Whole Milk Powder**

Matrix: Vitamin Milk Powders	Product ID	13734-QC
	Process Run	PR11326
	Expiry Date	21 Feb 25
	Sample Size	30g
	Vitamin A (µg/100gm)	378
	Vitamin C (mg/100g)	65.3
	Vitamin D (µg/100gm)	5.4

**Reference Material: Whey Powder - Whey Powder**

Matrix: Whey Powder	Product ID	860-C-1	897-C-1	818-C-1
	Expiry Date	14 Oct 24	21 May 25	7 Jun 25
	Sample Size	80g	80g	80g
	Ash (%)	7.59	8.23	
	Fat RG (%)	0.90	0.88	0.98
	Moisture 102°C (%)	1.78	1.83	
	pH (pH units)	6.81	6.85	
	Protein Kjeldahl (%)	16.15	15.72	17.62

**QC Material: Whey Powder - Whey Powder**

Matrix: Whey Powder	Product ID	13740-QC	14702-QC	13741-QC
	Process Run	PR11095	PR11375	PR10693
	Expiry Date	14 Oct 24	21 May 25	7 Jun 25
	Sample Size	80g	80g	80g
	Ash (%)	7.51	8.22	8.43
	Fat RG (%)	0.88	0.90	0.95
	Insolubility Index 24°C (mL)	0.08	0.08	0.09
	Moisture 102°C (%)	1.78	1.88	1.75
	pH (pH units)	6.81	6.86	6.86
	Protein Kjeldahl (%)	16.17	15.68	17.62
	Salt (%)	2.20	2.89	2.52
	Titrateable Acidity (%)	0.057	0.049	0.057

**Reference Material: Whey Protein Concentrate - WPC80 (Cheese)**

Matrix: Whey Protein Concentrate	Product ID	890-C-1
	Expiry Date	1 Apr 25
	Sample Size	80g
	Ash (%)	3.14
	Fat SBR (%)	5.0
	pH 5% Solution (pH units)	6.82
	Protein Kjeldahl (%)	79.34



**QC Material: Whey Protein Concentrate - WPC80 (Cheese)**

<b>Matrix: Whey Protein Concentrate</b>	Product ID	14711-QC
	Process Run	PR11375
	Expiry Date	1 Apr 25
	Sample Size	80g
	<b>Ash (%)</b>	3.16
	<b>Fat SBR (%)</b>	5.0
	<b>Insolubility Index 24°C (mL)</b>	0.12
	<b>Lactose (%)</b>	5.4
<b>Moisture 102°C (%)</b>	4.76	
<b>pH 5% Solution (pH units)</b>	6.80	
<b>Protein Kjeldahl (%)</b>	79.17	