

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

April 2023

Version: 1

**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.

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

### QC Material: Infant Formula - Stage 1 (IF) Dry Blended COW

Matrix: Infant Formula	Product ID Process Run Expiry Date Sample Size	13780-QC PR10435 2 Aug 24 150g	13782-QC PR10275 17 Apr 25 150g
	Adenosine (5-Mono) (mg/100g)	4.94	
	Alphalactalbumin (g/100g)	1.1	
	Arachidonic Acid (mg/100g)		109.49
	Ash (g/100g)	2.94	
	Cytidine (5-Mono) (mg/100g)	7.72	
	Docosahexaenoic Acid (mg/100g)		87.68
	Fat (g/100g)	29.00	
	Free Carnitine (mg/kg)	137	
	Galactooligosac (GOS) (%)	2.28	
	Guanosine (5-Mono) (mg/100g)	1.42	
	Inosine (5-Mono) (mg/100g)	2.80	
	Lauric Acid (mg/100g)		1536.87
	Lutein (µg/100gm)		133
	Moisture 102oC (%)	2.34	

	myo-Inositol (mg/kg)	248.9	
	Myristic Acid (mg/100g)		696.92
	Nucleotides (Total) (mg /100g)	21.28	
	pH 10% solution (pH units)	7.05	
	Protein (g/100g)	12.23	
	Taurine (mg/100g)	30.36	
	Total A-Linolenic Ac ( mg/100g)		456.26
	Total Carnitine (mg/kg)	144	
	Total Fatty Acid (mg/ 100g)		26338.80
	Total Fructan (FOS) (%)	1.40	
	Total Linoleic Acid (mg/ 100g)		3793.78
	Total Oleic Acid (mg/ 100g)		11451.77
	Trans Fatty Acid (mg/ 100g)		115.66
	Uridine (5-Mono) (mg/ 100g)	4.52	

**Reference Material: Infant Formula - Stage 1 (IF) Wet Blended COW**

Matrix: Infant Formula	Product ID	744-C-1	795-C-1
	Expiry Date	17 Sep 23	13 Nov 23
	Sample Size	150g	150g
	Ascorbic Acid Vit C (mg/kg)	874	
	B-carotene (µg/100gm)	129.0	
	Biotin (mg/kg)	0.34	
	Calcium (mg/kg)		5322
	Chloride (mg/kg)		5263
	Cholecalciferol Vit D3 (mg/kg)	0.105	
	Choline (mg/kg)	887	
	Copper (mg/kg)		3.94
	Folic Acid (mg/kg)	1.336	
	Iodine (mg/kg)		1.20
	Iron (mg/kg)		54.3
	Magnesium (mg/kg)		552
	Manganese (mg/kg)		1.66
	Pantothenic Acid VitB5 (mg/kg)	41.9	
	Phosphorus (mg/kg)		3340
	Phylloquinone Vit K1 (mg/kg)	0.47	
	Potassium (mg/kg)		6532
	Pyridoxine Vit B6 (mg/kg)	4.07	
	Riboflavin Vit B2 (mg/kg)	7.82	
	Selenium (mg/kg)		0.222
	Sodium (mg/kg)		2027
	Thiamine Vit B1 (mg/kg)	6.29	
	Vitamin A (as Retinol) (mg/kg)	6.76	
	Zinc (mg/kg)		50.6

**QC Material: Infant Formula - Stage 1 (IF) Wet Blended COW**

<b>Matrix: Infant Formula</b>	<b>Product ID Process Run Expiry Date Sample Size</b>	<b>12816-QC PR10022 17 Sep 23 150g</b>	<b>12063-QC PR10491 13 Nov 23 150g</b>	<b>13783-QC PR10376 6 Feb 25 150g</b>
	<b>Ascorbic Acid Vit C (mg /kg)</b>	872		902
	<b>B-carotene (µg/100gm)</b>	126.5		150.9
	<b>Biotin (mg/kg)</b>	0.34		0.34
	<b>Calcium (mg/kg)</b>		5349	
	<b>Chloride (mg/kg)</b>		5294	
	<b>Cholecalciferol Vit D3 ( mg/kg)</b>	0.106		0.110
	<b>Choline (mg/kg)</b>	877		890
	<b>Copper (mg/kg)</b>		3.94	
	<b>Cyanocobalamin Vit B 12 (mg/kg)</b>	0.0177		0.0249
	<b>dl-a-Tocopherol eqVit E (mg/kg)</b>	206		176
	<b>Folic Acid (mg/kg)</b>	1.320		1.394
	<b>Iodine (mg/kg)</b>		1.20	
	<b>Iron (mg/kg)</b>		54.6	
	<b>Magnesium (mg/kg)</b>		557	
	<b>Manganese (mg/kg)</b>		1.67	
	<b>Niacinamide Vit B3 (mg /kg)</b>	40		39
	<b>Pantothenic Acid VitB5 (mg/kg)</b>	43.0		45.8
	<b>Phosphorus (mg/kg)</b>		3349	
	<b>Phylloquinone Vit K1 ( mg/kg)</b>	0.50		0.53
	<b>Potassium (mg/kg)</b>		6599	
	<b>Pyridoxine Vit B6 (mg/ kg)</b>	4.13		4.02
	<b>Riboflavin Vit B2 (mg/ kg)</b>	7.92		9.15
	<b>Selenium (mg/kg)</b>		0.220	
	<b>Sodium (mg/kg)</b>		2037	
	<b>Thiamine Vit B1 (mg/kg )</b>	6.18		5.74
	<b>Vitamin A (as Retinol) ( mg/kg)</b>	6.86		5.83
	<b>Zinc (mg/kg)</b>		50.8	

**QC Material: Infant Formula - Stage 2 (FO) Wet Blended COW**

Matrix: Infant Formula	Product ID	12064-QC	13784-QC
	Process Run	PR10491	PR10376
	Expiry Date	11 Nov 23	14 Feb 25
	Sample Size	150g	150g
	Ascorbic Acid Vit C (mg /kg)		1100
	B-carotene (µg/100gm)		159.7
	Biotin (mg/kg)		0.51
	Calcium (mg/kg)	7394	
	Chloride (mg/kg)	5671	
	Cholecalciferol Vit D3 ( mg/kg)		0.108
	Choline (mg/kg)		1316
	Copper (mg/kg)	3.77	
	Cyanocobalamin Vit B 12 (mg/kg)		0.0339
	dl-a-Tocopherol eqVit E (mg/kg)		193
	Folic Acid (mg/kg)		1.284
	Iodine (mg/kg)	1.61	
	Iron (mg/kg)	82.1	
	Magnesium (mg/kg)	657	
	Manganese (mg/kg)	3.27	
	Niacinamide Vit B3 (mg /kg)		55
	Pantothenic Acid VitB5 (mg/kg)		45.0
	Phosphorus (mg/kg)	4805	
	Phylloquinone Vit K1 ( mg/kg)		0.76
	Potassium (mg/kg)	7566	
	Pyridoxine Vit B6 (mg/ kg)		5.34
	Riboflavin Vit B2 (mg/ kg)		15.78
	Selenium (mg/kg)	0.267	
	Sodium (mg/kg)	2391	
	Thiamine Vit B1 (mg/kg )		8.09
	Vitamin A (as Retinol) ( mg/kg)		7.31
	Zinc (mg/kg)	47.6	

**QC Material: Infant Formula - Stage 3 (GU3) Dry Blended COW**

Matrix: Infant Formula	Product ID Process Run Expiry Date Sample Size	13781-QC PR10275 4 Jul 24 150g	13779-QC PR10435 2 Aug 24 150g
	Adenosine (5-Mono) (mg/100g)		5.67
	Alphalactalbumin (g/100g)		0.8
	Arachidonic Acid (mg/100g)	85.64	
	Ash (g/100g)		3.42
	Cytidine (5-Mono) (mg/100g)		9.29
	Docosahexaenoic Acid (mg/100g)	64.13	
	Fat (g/100g)		24.73
	Free Carnitine (mg/kg)		180
	Galactooligosac (GOS) (%)		2.09
	Guanosine (5-Mono) (mg/100g)		1.67
	Inosine (5-Mono) (mg/100g)		3.39
	Lauric Acid (mg/100g)	1332.74	
	Lutein (µg/100gm)	207	
	Moisture 102oC (%)		2.26
	myo-Inositol (mg/kg)		495.4
	Myristic Acid (mg/100g)	625.09	
	Nucleotides (Total) (mg/100g)		25.10
	pH 10% solution (pH units)		7.06
	Protein (g/100g)		13.81
	Taurine (mg/100g)		35.32
	Total A-Linolenic Ac (mg/100g)	363.29	
	Total Carnitine (mg/kg)		225
	Total Fatty Acid (mg/100g)	21706.03	
	Total Fructan (FOS) (%)		0.96
	Total Linoleic Acid (mg/100g)	3116.34	
	Total Oleic Acid (mg/100g)	9391.75	
	Trans Fatty Acid (mg/100g)	102.44	
	Uridine (5-Mono) (mg/100g)		5.11