

Reference Material and Inter-laboratory Quality Control Materials Product Summary

March 2022

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 Cows Milk Infant Formula

| Matrix: Infant Formula | Product ID | 12816-QC | 12063-QC |
|------------------------------|---------------------------------|-----------|-----------|
| | Process Run | PR9686 | PR9822 |
| | Expiry Date | 17 Sep 22 | 13 Nov 23 |
| | Sample Size | 150g | 150g |
| | Alanine (%) | 0.622 | |
| | Arginine (%) | 0.394 | |
| | Ascorbic Acid Vit C (mg/kg) | 878 | |
| | Aspartic Acid (%) | 1.326 | |
| | a-Tocopherol eq. Vit E (mg/kg) | 197 | |
| | B-carotene (µg/100gm) | 137.0 | |
| | Biotin (mg/kg) | 0.34 | |
| | Calcium (mg/kg) | | 5290 |
| | Chloride (mg/kg) | | 5299 |
| | Cholecalciferol Vit D3 (mg/kg) | 0.104 | |
| | Choline (mg/kg) | 907 | |
| | Copper (mg/kg) | | 3.89 |
| | Cyanocobalamin Vit B 12 (mg/kg) | 0.0174 | |
| | Cystine (%) | 0.2510 | |

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|---------------------------------------|-------|-------|
| Folic Acid (mg/kg) | 1.307 | |
| Glutamic Acid (%) | 2.64 | |
| Glycine (%) | 0.259 | |
| Histidine (%) | 0.289 | |
| Iodine (mg/kg) | | 1.25 |
| Iron (mg/kg) | | 54.6 |
| Isoleucine (%) | 0.796 | |
| Leucine (%) | 1.415 | |
| Lysine (%) | 1.180 | |
| Magnesium (mg/kg) | | 555 |
| Manganese (mg/kg) | | 1.67 |
| Methionine (%) | 0.320 | |
| Niacinamide Vit B3 (mg/kg) | 39 | |
| Pantothenic Acid VitB5 (mg/kg) | 42.2 | |
| Phenylalanine (%) | 0.527 | |
| Phosphorus (mg/kg) | | 3331 |
| Phylloquinone Vit K1 (mg/kg) | 0.49 | |
| Potassium (mg/kg) | | 6512 |
| Proline (%) | 1.040 | |
| Pyridoxine Vit B6 (mg/kg) | 4.09 | |
| Retinol eq. Vit A (mg/kg) | 7.13 | |
| Riboflavin Vit B2 (mg/kg) | 7.97 | |
| Selenium (mg/kg) | | 0.222 |
| Serine (%) | 0.746 | |
| Sodium (mg/kg) | | 2029 |
| Thiamine Vit B1 (mg/kg) | 6.30 | |
| Threonine (%) | 0.847 | |
| Tryptophan (%) | 0.249 | |
| Tyrosine (%) | 0.453 | |
| Valine (%) | 0.82 | |
| Zinc (mg/kg) | | 50.8 |

Reference Material: Infant Formula - Stage 2 Cows Milk Infant Formula

| Matrix: Infant Formula | Product ID | 714-C-1 |
|------------------------------|--------------------------------|-----------|
| | Expiry Date | 14 Nov 22 |
| | Sample Size | 150g |
| | Adenosine (5-Mono) (mg/100g) | 1.69 |
| | Arachidonic Acid (mg/ 100g) | 63.96 |
| | Cytidine (5-Mono) (mg/ 100g) | 8.40 |
| | Fat (g/100g) | 27.41 |
| | Guanosine (5-Mono) (mg/100g) | 2.04 |
| | Inosine (5-Mono) (mg/ 100g) | 2.61 |
| | Moisture 102oC (%) | 1.95 |
| | myo-Inositol (mg/kg) | 359.2 |
| | Nucleotides (Total) (mg /100g) | 19.42 |
| | pH 10% solution (pH units) | 7.21 |
| | Protein (g/100g) | 10.49 |
| | Total Carnitine (mg/kg) | 133 |
| | Total Taurine (mg/100g) | 35.03 |
| | Uridine (5-Mono) (mg/ 100g) | 4.26 |

QC Material: Infant Formula - Stage 2 Cows Milk Infant Formula

| Matrix: Infant Formula | Product ID | 12067-QC | 12064-QC |
|------------------------------|--------------------------------|-----------|-----------|
| | Process Run | PR9776 | PR9822 |
| | Expiry Date | 14 Nov 22 | 11 Nov 23 |
| | Sample Size | 150g | 150g |
| | Adenosine (5-Mono) (mg/100g) | 1.70 | |
| | A-Linolenic Acid (mg/100g) | 387.32 | |
| | Alphalactalbumin (g/100g) | 0.9 | |
| | Arachidonic Acid (mg/100g) | 65.15 | |
| | Ash (g/100g) | 2.33 | |
| | Calcium (mg/kg) | | 7298 |
| | Chloride (mg/kg) | | 5635 |
| | Copper (mg/kg) | | 3.80 |
| | Cytidine (5-Mono) (mg/100g) | 8.41 | |
| | Docosahexaenoic Acid (mg/100g) | 55.74 | |
| | Fat (g/100g) | 27.41 | |
| | Free Carnitine (mg/kg) | 104 | |
| | Galactooligosac (GOS) (%) | 1.40 | |
| | Guanosine (5-Mono) (mg/100g) | 2.06 | |
| | Inosine (5-Mono) (mg/100g) | 2.56 | |
| | Iodine (mg/kg) | | 1.65 |
| | Iron (mg/kg) | | 83.2 |
| | Linoleic Acid (mg/100g) | 4300.00 | |
| | Magnesium (mg/kg) | | 661 |
| | Manganese (mg/kg) | | 3.32 |
| | Moisture 102oC (%) | 2.01 | |
| | myo-Inositol (mg/kg) | 360.0 | |
| | Nucleotides (Total) (mg/100g) | 19.30 | |
| | pH 10% solution (pH units) | 7.16 | |
| | Phosphorus (mg/kg) | | 4676 |
| | Potassium (mg/kg) | | 7410 |
| | Protein (g/100g) | 10.52 | |
| | Selenium (mg/kg) | | 0.272 |

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| | Sodium (mg/kg) | | 2389 |
| | Total Carnitine (mg/kg) | 135 | |
| | Total Taurine (mg/100g) | 34.65 | |
| | Uridine (5-Mono) (mg/100g) | 4.38 | |
| | Zinc (mg/kg) | | 48.0 |

Reference Material: Infant Formula - Stage 3 Cows Milk Infant Formula

| Matrix: Infant Formula | Product ID | 713-C-1 |
|------------------------------|--------------------------------|----------|
| | Expiry Date | 4 Jul 24 |
| | Sample Size | 150g |
| | Adenosine (5-Mono) (mg/100g) | 5.72 |
| | A-Linolenic Acid (mg/100g) | 356.48 |
| | Arachidonic Acid (mg/100g) | 85.73 |
| | Ash (g/100g) | 3.24 |
| | Docosahexaenoic Acid (mg/100g) | 65.30 |
| | Galactooligosac (GOS) (%) | 0.89 |
| | Guanosine (5-Mono) (mg/100g) | 1.92 |
| | Inosine (5-Mono) (mg/100g) | 3.18 |
| | Linoleic Acid (mg/100g) | 3094.72 |
| | Lutein (µg/100gm) | 229 |
| | Moisture 102oC (%) | 2.42 |
| | myo-Inositol (mg/kg) | 814.8 |
| | pH 10% solution (pH units) | 6.81 |
| | Protein (g/100g) | 18.37 |
| | Total Carnitine (mg/kg) | 207 |
| | Total Fructan (FOS) (%) | 1.08 |
| | Total Taurine (mg/100g) | 35.09 |
| | Uridine (5-Mono) (mg/100g) | 5.58 |

QC Material: Infant Formula - Stage 3 Cows Milk Infant Formula

| Matrix: Infant Formula | Product ID | 12066-QC | 12068-QC |
|------------------------------|--------------------------------|-----------|----------|
| | Process Run | PR9686 | PR9776 |
| | Expiry Date | 10 Nov 22 | 4 Jul 24 |
| | Sample Size | 150g | 150g |
| | Adenosine (5-Mono) (mg/100g) | | 5.92 |
| | Alanine (%) | 0.872 | |
| | A-Linolenic Acid (mg/100g) | | 360.00 |
| | Alphalactalbumin (g/100g) | | 1.1 |
| | Arachidonic Acid (mg/100g) | | 86.05 |
| | Arginine (%) | 0.661 | |
| | Ascorbic Acid Vit C (mg/kg) | 1790 | |
| | Ash (g/100g) | | 3.24 |
| | Aspartic Acid (%) | 1.903 | |
| | a-Tocopherol eq. Vit E (mg/kg) | 200 | |
| | B-carotene (µg/100gm) | 157.6 | |
| | Biotin (mg/kg) | 0.56 | |
| | Cholecalciferol Vit D3 (mg/kg) | 0.110 | |
| | Choline (mg/kg) | 1296 | |
| | Cyanocobalamin Vit B12 (mg/kg) | 0.0393 | |
| | Cystine (%) | 0.2850 | |
| | Cytidine (5-Mono) (mg/100g) | | 11.05 |
| | Docosahexaenoic Acid (mg/100g) | | 65.85 |
| | Fat (g/100g) | | 22.80 |
| | Folic Acid (mg/kg) | 1.273 | |
| | Free Carnitine (mg/kg) | | 162 |
| | Galactooligosac (GOS) (%) | | 1.03 |
| | Glutamic Acid (%) | 4.39 | |
| | Glycine (%) | 0.410 | |
| | Guanosine (5-Mono) (mg/100g) | | 1.97 |
| | Histidine (%) | 0.519 | |
| | Inosine (5-Mono) (mg/100g) | | 3.31 |
| | Isoleucine (%) | 1.200 | |

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|---------------------------------------|-------|---------|
| Leucine (%) | 2.200 | |
| Linoleic Acid (mg/100g) | | 3072.96 |
| Lutein (µg/100gm) | | 231 |
| Lysine (%) | 1.845 | |
| Methionine (%) | 0.543 | |
| Moisture 102oC (%) | | 2.40 |
| myo-Inositol (mg/kg) | | 828.5 |
| Niacinamide Vit B3 (mg /kg) | 72 | |
| Nucleotides (Total) (mg /100g) | | 27.60 |
| Pantothenic Acid VitB5 (mg/kg) | 44.0 | |
| pH 10% solution (pH units) | | 6.75 |
| Phenylalanine (%) | 0.932 | |
| Phylloquinone Vit K1 (mg/kg) | 0.74 | |
| Proline (%) | 1.950 | |
| Protein (g/100g) | | 18.55 |
| Pyridoxine Vit B6 (mg/ kg) | 4.93 | |
| Retinol eq. Vit A (mg/kg) | 8.23 | |
| Riboflavin Vit B2 (mg/ kg) | 13.49 | |
| Serine (%) | 1.218 | |
| Thiamine Vit B1 (mg/kg) | 8.02 | |
| Threonine (%) | 1.168 | |
| Total Carnitine (mg/kg) | | 208 |
| Total Fructan (FOS) (%) | | 1.28 |
| Total Taurine (mg/100g) | | 34.89 |
| Tryptophan (%) | 0.350 | |
| Tyrosine (%) | 0.852 | |
| Uridine (5-Mono) (mg/ 100g) | | 5.60 |
| Valine (%) | 1.32 | |