Fera Science Ltd. (Fera)
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Fapas® QC MATERIAL DATA SHEET	T21142QC
Matrix	Infant Formula
Weight / Volume of Contents	100 g

Analyte	Assigned Value, x_a	Range for |z| ≤2	Units	No. of data points producing x_a
Vitamin A	429	343 – 515	µg/100g	70
Vitamin B12	1.86	1.04 - 2.68	µg/100g	34
Vitamin C	95.4	72.3 - 118.5	mg/100g	72
Vitamin D3	10.9	7.9 - 13.8	µg/100g	54
Vitamin E	20.5	16.4 - 24.6	mg/100g	61
Vitamin K1	37.7	23.7 - 51.6	µg/100g	38
Vitamin A (reconstituted)	44.9	28.7 - 61.1	µg/100ml	9
Vitamin D3 (reconstituted)	1.07	0.60 - 1.53	µg/100ml	8

This data sheet is applicable until	17 Jun 2027
Recommended Storage on receipt	-20°C

Notes

- Mix the QC material thoroughly before taking a representative analytical sample.
- The assigned value has been derived from the consensus of laboratories taking part in proficiency test, using a variety of methods. This is not a certified reference value.
- The Range for |z| ≤2 is the concentration range within the limits of ±2 z-scores. The assigned value and its range have been established from the proficiency test data and are suitable for use by laboratories as a fit-for-purpose quality control measure.
- Stability of the QC material has been established as sufficient for the scope of the proficiency test from previous experience, expert advice and published literature. Fapas® advises that the QC material is analysed within the recommended date. Fapas® QC materials are intended to be used as single-analysis samples.
- Full details on the proficiency test procedure used to characterise this QC material are available in the Protocol, Part 1 - Common Principles, freely available to download from the Fapas® website.
- You may use any method of analysis you wish.
- The specific forms of vitamins are:
- vitamin A as retinol (the sum of cis and trans isomers)
- vitamin D3 as cholecalciferol (molecular weight 384.64)
- vitamin C as the sum of L(+)ascorbic acid and dehydro L(+)ascorbic acid
- vitamin E as sum of d-alpha tocopherol and l-alpha tocopherol
- vitamin K1 as phylloquinone
- vitamin B12 as cyanocobalamin in µg/100g

Reconstituted vitamin A and D3

Please prepare reconstituted samples as follows:

10 ±0.1 g infant formula test material into 90 ±0.1 ml of deionised water.

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- vitamin A (reconstituted) as retinol (the sum of cis and trans isomers) in µg/100ml
- vitamin D3 (reconstituted) as cholecalciferol (molecular weight 384.64) in µg/100ml