

# Chemistry

Global trade in infant formula and nutritional products is based on confidence from suppliers, customers and regulatory agencies that test results are correct and in accordance with label claims, and there is equivalency between all laboratories throughout a global supply chain. The NurtureChek Proficiency Programme provides independent verification that testing laboratories meet the industry's high standards.



#### **PROGRAMME OBJECTIVE**

The NurtureChek Proficiency Testing scheme has been developed to provide a system for laboratories to validate their testing capability and to benchmark their results and methods among a network of competent laboratories. The scheme provides independent test verification to laboratories, manufacturers, and monitoring agencies, and ultimately to the consumer, that the testing is being carried out competently.

#### **BENEFITS OF PARTICIPATING**

#### > Confidence in Results

Measurement of performance in comparison with other laboratories provides confidence that:

- Precision and Accuracy of test results and test methods are within acceptable limits
- Results from participating laboratories (or groups of laboratories) are equivalent
- In-house methods are equivalent to national or international standard methods

#### Credibility

Performance can be demonstrated to:

- Manufacturers
- Customers
- Regulatory Authorities
- Accreditation Agencies

#### > Compliance with

- Laboratory Standards (e.g., ISO 17025)
- Regulatory and market access requirements

#### Training

Test performance from individual analysts can be monitored and reported over time.

# **PROGRAMME FEATURES**

- Supporting laboratories by providing verification activities for manufacturing and process operations
- Technical direction from an independent Technical Advisory Group ensuring relevance to current industry needs
- Separation of data by method (where appropriate)

#### **ACCREDITATION**

- Global Proficiency is accredited to ISO/IEC 17043: Conformity Assessment - General Requirements for the competence of proficiency testing providers; our scope includes the NurtureChek programme.
- Global Proficiency is also accredited to ISO 17034: General requirements for the competence of reference material producers. For information on the range of Reference Materials offered, please visit our website.

#### **SAMPLE TYPES**

Infant formula of different ages and base types (Cow and Goats milk) are presented where appropriate. Rounds are split into specific analyte groups and offered as follows:

- Vitamins & Amino Acids (NUT): March & September (Note -Amino Acids are only offered in March)
- Proximates, Nucleotides & other Nutrients (NCK): April &
   October (Note 5 mL of GOS syrup is provided if required)
- Minerals (MNT): May & November
- Fatty Acids & Lutein (NCL): July
- Lactoferrin (LAC & LAF): July \*\*

Samples are offered as a three-sample set consisting of formula packed in induction sealed pots. Detailed instructions are provided for preparation and testing of samples.

\*\* Lactoferrin is offered as a two-sample set. Includes both infant formula (of different ages of Cows milk) and pure lactoferrin.

#### **AVAILABLE TESTS**

### Vitamins & Amino Acids (NUT):

Retinol eq. (Vit A)	Choline	Cystine
Phylloquinone (Vit K1)	β-carotene	Alanine
Ascorbic Acid (Vit C)	Biotin	Glycine
Niacinamide (Vit B3)	Thiamine (Vit B1)	Leucine
Pantothenic Acid (Vit B5)	Glutamic Acid	Lysine
Cyanocobalamin (Vit B12)	Arginine	Proline
Riboflavin (Vit B2)	Aspartic Acid	Serine
Pyridoxine (Vit B6)	Isoleucine	Threonine
Cholecalciferol (Vit D3)	Histidine	Tryptophan
α-Tocopherol eq. (Vit E)	Methionine	Tyrosine
Folate (as Folic Acid)	Phenylalanine	Valine

# Proximates, Nucleotides & other Nutrients (NCK):

Total Fructan (FOS)	α-Lactalbumin	Ash
<i>myo</i> -Inositol	Total Carnitine	рН
Moisture	Free Carnitine	Fat
Nucleotides (Total)	Total Taurine	Protein
AMP, CMP, GMP, IMP, UMP	Galactooligosaccharides (GOS)	

# Minerals (MNT):

Calcium	Iodine	Manganese	Copper	Selenium	Zinc
Chloride	Iron	Phosphorus	Magnesium	Potassium	Sodium

# Fatty Acids & Lutein (NCL):

Total Linoleic Acid	Total Oleic Acid	Lauric Acid
Total Linolenic Acid	Trans Fatty Acids	Myristic Acid
Arachidonic Acid (AA)	Total Fatty Acids	Lutein

Docosahexaenoic Acid (DHA)

Lactoferrin (LAC & LAF):

Lactoferrin Content Lactoferrin Purity

FOR MORE INFORMATION, PLEASE VISIT OUR WEBSITE

www.global-proficiency.com
OR EMAIL

enquiries@global-proficiency.com

