World Food Programme

Technical Specifications for:
LIPID-BASED NUTRIENT SUPPLEMENT - SMALL QUANTITY

Version: 5
Replacing: v.4, 2023
Date of issue: Aug 1, 2024
FOSTER Reference: FS00022

Key update:
- Revision of the presentation of Salmonella and Enterobacteriaceae requirements

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1. Introduction

Product name (hereafter called the product): Lipid-based Nutrient Supplement (small quantity)

General description:
The product is a fortified lipid-based paste/spread that is stabilized and individually packaged in robust sachets that are packed in sturdy cartons.

Target groups: Children 6 months and older.

Preparation instructions:
The product is intended to be eaten directly from the package with no necessary dilution, mixing or cooking. One package contains one daily dose of 20g. The product shall be consumed within 24 hours after opening. Consultation with a health-worker is recommended for assessing child's development needs.

Definitions and other introductory details:
The product is a fortified complementary food that contributes to preventing undernutrition, including wasting, micronutrient deficiencies and stunting.
This product is to be consumed to complement breastmilk/breastmilk substitutes and family foods.

The following aspects are as per contract:

-GMOs-related requirements
-Specific labelling requirements

2. Standards

Except when specified otherwise in the contract, the raw materials, the manufacture, testing, packaging and labelling, of the product shall be in strict compliance with the specifications set forth herein, and with the latest edition of the following standards/guidelines (whichever is stricter). Supplier shall not deviate in any way from the specifications without WFP's prior written consent.
Codex Texts can be found in the following webpages:
- Standards: https://www.fao.org/fao-who-codexalimentarius/codex-texts/list-standards/tr/;
- Codes of practice: https://www.fao.org/fao-who-codexalimentarius/codex-texts/codes-of-practice/en/;
- Guidelines: https://www.fao.org/fao-who-codexalimentarius/codex-texts/guidelines/tr/;
- Maximum Residue Limits (MRLs) and Extraneous Maximum Residue Limits (EMRLs) for pesticides: https://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/en/;

- Additionally, Guidelines of International Commission on Microbiological Specifications for Foods can be found here: https://www.icmsf.org/publications/books/.

Applicable Standards

- CODEX GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD AND FEED (CXS 193-1995)
- CODEX GENERAL PRINCIPLES OF FOOD HYGIENE (CXC 1-1969)
- CODEX MAXIMUM RESIDUE LIMITS (MRLs) AND CODEX EXTRANEOUS MAXIMUM RESIDUE LIMITS (EMRLs) FOR PESTICIDES
- RECOMMENDED METHODS OF SAMPLING FOR THE DETERMINATION OF PESTICIDE RESIDUES FOR COMPLIANCE WITH MRLS (CXG 33-1999)
- CODEX GENERAL STANDARD FOR FOOD ADDITIVES (CXS 192-1995)
- CODEX CODE OF PRACTICE ON FOOD ALLERGEN MANAGEMENT FOR FOOD BUSINESS OPERATORS (CXC 80-2020)
- CODEX GENERAL GUIDELINES ON CLAIMS (CXG 1-1979)
- CODEX GENERAL STANDARD FOR THE LABELLING OF PREPACKAGED FOODS (CXS 1-1985)
- CODEX GUIDELINE ON NUTRITION LABELLING (CXG 2-1985)
- CODEX GUIDELINES FOR VITAMIN AND MINERAL FOOD SUPPLEMENTS (CAC/GL 55-2005)
- CODEX CODE OF HYGIENIC PRACTICE FOR LOW-MOISTURE FOODS (CXC 75-2015)
- FAO/WHO MICROBIOLOGICAL RISK ASSESSMENT SERIES 29: MICROBIAL SAFETY OF LIPID-BASED READY-TO-USE FOODS FOR MANAGEMENT OF MODERATE ACUTE MALNUTRITION AND SEVERE ACUTE MALNUTRITION
- RECOMMENDATIONS FROM JOINT FAO/WHO EXPERT MEETING ON TROPANE ALKALOIDS, 2020
- CODEX GENERAL STANDARD FOR THE LABELLING OF AND CLAIMS FOR PRE-PACKAGED FOODS FOR SPECIAL DIETARY USES (CXS 146-1985)
- CODEX MAXIMUM RESIDUE LIMITS (MRLs) AND RISK MANAGEMENT RECOMMENDATIONS (RMRs) FOR RESIDUES OF VETERINARY DRUGS IN FOODS (CX/MRL 2-2021)
- CODEX CODE OF PRACTICE FOR THE REDUCTION OF 3-MONOCHLOROPROPANE-1,2- DIOL ESTERS (3-MCPDES) AND GLYCIDYL ESTERS (GES) IN REFINED OILS AND FOOD PRODUCTS MADE WITH REFINED OILS (CXC 79-2019)
- ISO 22000: FOOD SAFETY MANAGEMENT SYSTEMS
- ISO/TS 22004 – GUIDANCE ON THE APPLICATION OF ISO 22000.
- CODEX GUIDELINES ON FORMULATED COMPLEMENTARY FOODS FOR OLDER INFANTS AND YOUNG CHILDREN (CXG 08-1991)
- CODEX STANDARD FOR PROCESSED CEREAL-BASED FOODS FOR INFANTS AND YOUNG CHILDREN (CXC 74-1981)
- WHO TECHNICAL NOTE 2012: SUPPLEMENTARY FOODS FOR THE MANAGEMENT OF MODERATE ACUTE MALNUTRITION IN INFANTS AND CHILDREN 6–59 MONTHS OF AGE

3. Raw Materials

All ingredients shall be of good quality, comply with the latest version of Codex Alimentarius and applicable food laws and regulation in the food originating countries (which-ever is stricter). Where there is no standard available, The Joint FAO/WHO Expert Committee on Food Additives (JECFA) and The European Food Safety Authority (EFSA) evaluations shall be considered for guidance limits.
The table for raw materials presents a non-exhaustive list of Food commodity standards.
Suppliers shall conduct risk assessment on raw materials to ensure quality of raw materials is adequate to meet final product specifications.
Only raw materials specified below are allowed in this product.
Additives listed and utilized as per standards specified in the Applicable Standards section above may be present in the products.
Honey is prohibited due to a safety hazard.

Raw material name	Applicable Food Standards	Additional Requirements
Peanuts and peanuts used to produce peanut paste	CODEX STANDARD FOR PEANUTS (CXS 200-1995)	n/a

Chickpeas and soybeans	CODEX STANDARD FOR CERTAIN PULSES (CXS 171-1989) (for chickpeas only)	n/a
Maize flour	CODEX STANDARD FOR DEGERMED MAIZE (CORN) MEAL AND MAIZE (CORN) GRITS (CXS 155-1985)	- Pre-gelatinized maize flour (at least 80% of gelatinization) should be used to facilitate starch digestion. - Maize (corn) shall be peeled/dehulled to limit the presence of anti-nutritional factors. - Heat treatment of maize flour shall include extrusion or drum drying process.
Soy protein products	CODEX STANDARD FOR SOY PROTEIN PRODUCTS (CXS 175-1989)	n/a
Oil and oil used to produce shortening	CODEX STANDARD FOR NAMED VEGETABLE OILS (CXS 210-1999)	n/a
Sugar	CODEX STANDARD FOR SUGARS (CXS 212-1999)	The quantity of sugar shall meet the limits specified in Nutritional requirements section.
Milk powder, Whey powder, Whey permeate powder	- CODEX STANDARD FOR MILK POWDERS AND CREAM POWDER (CXS 207-1999) - CODEX STANDARD FOR WHEY POWDER (CXS 289-1995) - CODEX STANDARD FOR DAIRY PERMEATE POWDERS (CXS 331-2017)	Melamine shall remain below 2.5 mg/kg in dairy source used. Suppliers shall test melamine at least once a year for each individual source of dairy protein used. The quantity of dried skimmed milk protein shall meet the limits specified in Nutritional requirements section.
Flavourings and antioxidants, including carry over from ingredients	- CODEX GENERAL STANDARD FOR FOOD ADDITIVES (CXS 192-1995) - CODEX GUIDELINES ON FORMULATED COMPLEMENTARY FOODS FOR OLDER INFANTS AND YOUNG CHILDREN (CXG 08-1991)	Artificial flavoring and synthetic antioxidant such as Butylhydroxyanisol (BHA), Butylated hydroxytoluene (BHT), and Tertiary butylhydroquinone (TBHQ) are not authorized.
Maltodextrin	FOOD CHEMICAL CODEX SPECIFICATIONS	n/a

4. Micronutrients

The product shall be fortified with the micronutrient premix below at appropriate rate to ensure compliance with final product nutritional requirements. If manufacturers require adapting premix to meet the final product specifications, the manufactures shall present evidence for WFP’s approval.

Suppliers shall implement an effective food safety and quality management system for the premix, including supplier approval and premix quality control.
Additionally, the premix shall:
- Conform to all relevant quality standards, including food chemical Codex.
- Be suitable for vegetarian. The definition of the terms “Food suitable for vegetarians” can be found here: https://www.fooddrinkeurope.eu/wp-content/uploads/2021/09/Joint-statement-on-vegan-vegetarian-definitions.pdf (Annex I).
- Be purchased from WFP or GAIN approved suppliers (http://gpf.gainhealth.org).
- Be delivered to the manufacture with a Certificate of Analysis (CoA) showing levels of all micronutrients included in the premix. This CoA shall be submitted to WFP along with other documents for payment.
- Micronutrient premixes shall be stored as recommended by premix manufacturer (e.g., under 25°C).
Approximate incorporation rate: 6.87%.

Micronutrient	Added/100g final product (+/-10%)	Unit	Chemical form
Vitamin A (RE)	2,927	µg	Dry Vitamin A Palmitate / Dry Vitamin A Acetate *
Thiamin	3.4	mg	Thiamine mononitrate / Thiamine hydrochloride
Riboflavin	2.7	mg	Riboflavin
Niacin	26	mg	Niacinamide
Pantothenic acid	12	mg	Calcium d-Pantothenate
Vitamin B6	2	mg	Pyridoxine hydrochloride
Biotin	56	µg	Biotin
Folate (DFE)	939	µg	Folic acid food grade
Vitamin B12	3.7	µg	Cyanocobalamin
Vitamin C	152	mg	Ascorbic acid fine powder; Calcium ascorbate dihydrate
Vitamin D	45	µg	Cholecalciferol
Vitamin E (aTE)	28	mg	Vitamin E acetate (50% dl-alpha-tocopherol acetate)
Vitamin K	203	µg	Phytomenadione
Calcium	1,251	mg	98.5% Ca from tricalcium phosphate and 1.4% Ca from calcium ascorbate and 0.1% Ca from d-calcium pantothenate
Copper	1.8	mg	Copper sulphate anhydrous / copper gluconate
Iodine	539	µg	Potassium iodide
Iron	34	mg	60% Fe from ferrous sulfate monohydrate and 40% Fe from NaFeEDTA
Magnesium	162	mg	Magnesium sulphate monohydrate / magnesium citrate or gluconate
Manganese	6.5	mg	Manganese sulphate monohydrate
Phosphorus	785	mg	81% from tricalcium phosphate and 19% from dipotassium phosphate
Potassium	612	mg	61% from Dipotassium phosphate and 39% from potassium chloride
Selenium	119	µg	Sodium selenite /sodium selenate
Zinc	44	mg	Zinc sulfate monohydrate

* Vitamin A (RE): beadlet or spray dried form can be used assuming there is no carryover of antioxidants not approved in Codex.

5. Processing

Food safety and quality management at manufacturing premises

The manufacturer shall be able to demonstrate by principle and practice the adoption, implementation and recording of:
- Good Manufacturing Practices (GMPs)
- Good Hygiene Practices (GHPs)
- Hazard Analysis Critical Control Point Program (HACCP)

- Global Food Safety Initiative (GFSI) scheme principles.

In this context an appointed WFP staff/Quantity&Quality Inspector/Surveyor/Auditor is entitled to visit the factory without prior notice during any period when WFP product is being manufactured to check that production is done as per WFP contract specifications.
The WFP staff/Inspector/Surveyor/Auditors may examine any aspect of Supplier's manufacturing premises and its documentation relating to any products or services provided to WFP, including but not limited to production facilities, procedures, records, certifications, or practices.
Food suppliers shall notify WFP immediately of lots (pre-delivery and post-delivery) that fail to meet contract requirements. Any testing on food safety parameters for foods (and/or the associated raw materials) delivered to WFP shall be pre-agreed with WFP.

The producer shall be authorized by competent governmental authorities to process products for human consumption and to export. The authorization of export is only required when the producer supplies WFP internationally.

6. Product Specifications

- The product's organoleptic characteristics shall be characteristics of the designated product.
- The product shall meet the testing requirements stated in this document.
- The product shall be homogeneous, uniform, with small particle size which does not require and does not encourage chewing before being swallowed.
- The product shall be free of lumps and of large coarse particles and suitable for consumption by children 6 months and older.
- Blend of oils shall be judiciously chosen to meet omega 3 and omega 6 requirements in the finished product and to minimize oil separation.
- GMOs-related requirements shall be as per contract. When non-GMOs or GMOs-free requirements are made in the contract without specifying a maximum limit, the product is considered as acceptable if it contains, consists of or is produced from materials with traces of authorized GMOs in a proportion no higher than 0.9% (if the product is not consisting of a single ingredient the limit shall be applied to each ingredient considered individually), provided that GMOs presence is adventitious or technically unavoidable, in accordance with Regulation (EC) No 1829/2003 (the latest version in force). Operators must be in a position to supply evidence to satisfy the competent authorities that they have taken appropriate steps to avoid the presence of such material. The EU register of authorised GMOs is available at https://webgate.ec.europa.eu/dyna2/gm-register/.

7. Nutritional requirements

The product shall contain the following nutritional values throughout the shelf life. Suppliers shall consult the footnotes below the table for additional requirements.

Nutrients	Unit	Min/100g	Max/100g	Label/100g	Label/feeding
Energy	kcal	550	620	x	x
Energy	kj	2,301	2,594	x	x
Fat	g	40	53	x	x
of which saturates	g			x	x
Carbohydrate	g			x	x
of which sugars	g			x	x
Protein *	g	12	16	x	x
Sodium	mg		270	x	x
Vitamin A (RE)	µg	2,000	3,390	2000	400
Thiamin	mg	1.5	3.8	1.5	0.3
Riboflavin	mg	2	3	2	0.4
Niacin	mg	20	28.8	20	4
Pantothenic acid	mg	9	14	9	1.8
Vitamin B6	mg	1.5	2.3	1.5	0.3
Biotin	µg	45	65	45	9

Folate (DFE)	µg	667	1,044	667	133.4
Vitamin B12	µg	2.5	4.2	2.5	0.5
Vitamin C	mg	75	169	75	15
Vitamin D	µg	25	52	25	5
Vitamin E (aTE)	mg	20	47	20	4
Vitamin K	µg	150	323	150	30
Calcium	mg	1,400	1,960	1400	280
Copper	mg	1.7	2.2	1.7	0.34
Iodine	µg	450	742	450	90
Iron	mg	30	42	30	6
Magnesium	mg	200	280	200	40
Manganese	mg	6	9	6	1.2
Phosphorus	mg	982	1,375	982	196.4
Potassium	mg	1,000	1,400	1000	200
Selenium	µg	100	160	100	20
Zinc	mg	40	56	40	8

- Unless otherwise specified in the contract, suppliers shall follow the above labelling specifications, including the number & order of nutrients. All nutrients shall be labelled even if the values are zero (mark as “= 0”). Suppliers shall declare “X” values based on actual products. The above labelling values are given as examples. Suppliers should revise the values to match the actual products where required.
- Carbohydrates = Available Carbohydrates = sugars + starches. The theoretical calculation can be made based on food composition database such as: https://fdc.nal.usda.gov/.
- The serving size shall be marked on the label.
* Sources of protein in addition to dry skimmed milk shall be selected to maintain a PDCAAS (Protein Digestibility-Corrected Amino Acid Score) of 70% minimum, calculated using the method provided in 2017 FAO protein quality assessment for ready to use therapeutic foods.
- Dry skimmed milk protein: 8-13 g/100g. If the dry skimmed milk (DSM) used has 36% protein, this is equivalent to min 25% DSM in the formulation.
- ω-3 fatty acids: 2.5-4 g/100g.
- ω-6 fatty acids: 4-15 g/100g.
- The required ω-6/ ω-3 ratio is maximum 5. Oils rich in Omega 3 and low in Omega 6 such as rapeseed oil can be used for reaching a good balance.
- Added sugar: maximum 8g/100g.
- The Vitamin C minimum value refers to the product at the end of the shelf-life after nutrient loss. The product shall also meet the nutritional requirements on products at the time of purchase as stated in the section Analytical Requirements.

8. Product Safety

- The product shall not contain any harmful substances including, but not limited to, micro-organisms, heavy metals, pesticides, mycotoxins, residues of hormones, antibiotics, pharmacologically active substances, foreign matter or anti-nutritional factors, in amounts that may represent a hazard to health of the specific population group for which they are intended. Where there is no applicable standard available, The Joint FAO/WHO Expert Committee on Food Additives (JECFA) and The European Food Safety Authority (EFSA) evaluations shall be considered for guidance limits.
- The product shall be free from toxic or noxious seeds in amounts which may represent a hazard to human health. This includes Crotolaria (Crotalaria spp.), Corn cockle (Agrostemma githago L.), Castor bean (Ricinus communis L.), Jimson weed (Datura spp.), and other seeds that are commonly recognized as harmful to health. A non-exhaustive list

of these seeds can be found in ISO 7970.
- Fit for human consumption guarantee: Suppliers shall manage the quality of their product and guarantee that the product is ‘fit for human consumption’ and in line with TIC Council/IFIA Guidelines*.
- The product shall comply strictly with Codex General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995), Codex Maximum Residue Limits (MRLs) and Codex Extraneous Maximum Residue Limits (EMRLs) for Pesticides, Codex Maximum Residue Limits (MRLs) for Residues of Veterinary Drugs in foods (CX/MRL 2-2021) and Guidelines of International Commission on Microbiological Specifications for Foods**.
- The product destined for specific countries (e.g., Syria) shall comply fully with relevant local food standards. For example, Aflatoxin B1 in the final product shall be maximum 0.1 ppb (referring to product as sold).

Links of references mentioned above:
*http://www.ifia-federation.org/content/wp-content/uploads/Fit_for_Human_Consumption_Bulletin_Rev_4.pdf.
**https://www.icmsf.org/publications/books/

9. Shelf life

- The product shall have a minimum shelf-life as stated below when stored in ambient temperature, dry place and hygienic conditions. Or reduced shelf-life as per contract.
- Products shall meet this specification, remain stable & suitable for human consumption throughout the shelf-life.
- Suppliers should conduct shelf-life studies following WFP shelf-life study requirements (available at https://docs.wfp.org/api/documents/WFP-0000118387/download/) to support the shelf-life claim.
- Products shall have a minimum of 80% of shelf-life remaining when presented to WFP for inspection, unless otherwise authorized by WFP.
- At least one shelf-life study per recipe should be initiated to confirm that food remains within maximum and minimum defined in Nutritional requirements table and that there shall be no more than slight oil separation throughout the shelf-life of the product.
- Suppliers' Change management protocol shall clearly define triggers of new shelf-life study including major changes in production processes, suppliers, and ingredients.

Shelf-Life duration: 24 months

10. Packaging and Marking

When a WFP contract requires break-bulk delivery and/or empty packaging to be delivered with food, the product packaging, marking and stuffing of containers shall comply with the following specification:

https://docs.wfp.org/api/documents/WFP-0000144655/download/

Templates for packaging artwork are available in the specification above and additional labelling requirements shall be as per contract.

Additives shall be labelled as ingredients.

Other information on packaging and labelling:

Any ingredient or processing aid or any other substances listed in Annex II* or derived from a substance or product listed in Annex II* causing allergies or intolerances used in the manufacture or preparation of a food and still present in the finished product, even if in an altered form, shall be labelled in bold letters. Where a justified, risk-based assessment demonstrates that the nature of the production process/facility is such that cross-contamination (cross-contact) from an allergen can be prevented, the labelling of this allergen is voluntary.
In the absence of a list of ingredients, the labelling shall comprise the word “contains” followed by the name of the substance or product as listed in Annex II* except for products constituted by a single ingredient if distributed under a name which clearly refers to the corresponding substance or product as listed in Annex II*.

For cross contamination labelling, the following terms should be used: “May contain….”.
The supplier is responsible for creating and maintaining an updated list of allergens present in the manufacturing facility. When a new allergen is introduced, the supplier shall evaluate the risk. When the allergen labelling is updated, such update shall be communicated to WFP beforehand.
*Annex II refers to the Annex II of EU Regulation 1169/2011 (latest version).

11. Technical document requirements

When required, suppliers shall submit a Certificate of Analysis (CoA) of the final product to WFP, along with other documents for payment. Additionally, suppliers shall provide other technical documents upon request from WFP.

12. Analytical Requirements

Suppliers shall follow their own food safety and quality management plan. WFP can conduct tests on products as per the Table below. Additionally, WFP reserves the rights to change this testing plan at any time.
Any products taken for the purpose of weight check and lab testing (including retention samples) shall be replenished by the suppliers. The shipment quantity shall not be less than the purchased quantity. When non-destructive inspection is done, suppliers shall close the package or replace it.
In addition to the pre-delivery Q&Q inspection, WFP can also perform prior-assessment (e.g., documentation check, production monitoring, audits, assessment of raw materials, etc).
Suppliers acknowledge that any prior-assessment by WFP or its designated inspection agents does not constitute a determination whether the specifications for the foods set out in this document or any purchase order (including mandatory technical requirements) have been met. Suppliers will be required to comply with their warranty and other contractual obligations whether or not WFP carries out such prior-assessment.
The prior-assessment undertaken by WFP or its designated inspection agents will not substitute for the pre-delivery Q&Q inspection and testing of the goods upon delivery to WFP.
The body of the specification shall be considered in order to verify if any additional requirement is applicable to the specific purchase.
Unless otherwise specified, all analysis requirements refer to the product as sold.

Quantitative requirements

Test Name	Unit	Min	Max	Reference methods (latest versions) *	Test Type
Aflatoxins total (B1+B2+G1+G2)	ppb	0	10	ISO 16050 **	Type A
Iron (Fe)	mg/100g	30	42	AOAC 990.05 ISO 8294 **	Type A
Lipid	g/100g	40	53	ISO 17189 **	Type A
Protein	g/100g	12	16	AOAC 991.20 (**) (******)	Type A
Vitamin C	mg/100g	75	169	EN 14130:2003 AOAC 2012.21 AOAC 985.33 **/***	Type A
Water activity	(-)	0	0.6	n/a	Type B
Tropane alkaloids (hyoscyamine + scopolamine)	ppb	0	10	n/a	Type B

* or equivalent validated methods meeting the requirements of EN ISO 16140-2

Qualitative requirements

Test Name	**Requirements**	**Reference methods (latest versions)** *	**Test Type**
Salmonella	n=30, c=0, m=absent in 750 grams Aliquot 1 ****	ISO 6579	Type A
Salmonella	n=30, c=0, m=absent in 750 grams Aliquot 2 ****	ISO 6579	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 1 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 2 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 3 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 4 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 5 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 6 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 7 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 8 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 9 *****	ISO 21528-2	Type A
Enterobacteriaceae	n=10, c=2, m=10 cfu/g, M=100 cfu/g Test 10 *****	ISO 21528-2	Type A

* or equivalent validated methods meeting the requirements of EN ISO 16140-2

** minimum 12 individual sachets from 12 randomly chosen cartons to be mixed into 1 composite test sample by the laboratory.
*** The Vitamin C minimum value refers to the product at the time of purchase, not considering loss during shelf-life.
**** 25 g to be pooled from each of the 30 sachets, then 2 portions of 375 grams each to be tested. The test report shall reflect 2 results for testing in 375 grams analytical unit. Samples may be pooled dry, by the laboratory, if lab method has been validated.
***** 10 g analytical unit, 10 separate samples to be drawn form 10 different sachets, no pooling. The test report shall reflect 10 results in 10 gram analytical unit.
****** Nx6.25