

PRODUCT INFORMATION SHEET

Dietatic Food I: Vitamins B1, B2, B6, B12, Biotin, Vitamin C, Folic Acid, Niacin and Pantothenic Acid in Drink Powder

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	<i>DLA ptSU06 (2024) – Dietatic Food I: Vitamins B1, B2, B6, B12, Biotin, Vitamin C, Folic Acid, Niacin and Pantothenic Acid in Drink Powder</i>
Identifier / LOT	<i>RM 2024-SU06</i>
Expiry date	<i>March 2027</i>
Matrix	<i>Drink Powder</i>
Physical description	<i>Powder</i>
Packaging / weight	<i>Sealed foil pouche / 50 g</i>
Storage conditions	<i>2 - 10°C (dry and dark)</i>
Name and address manufacturer	DLA - Proficiency Tests GmbH Hauptstr. 80, 23845 Oering, Germany Tel. ++49-(0)4532-9183358, Fax. ++49(0)4102-9944976 eMail. pt@dla-lvu.de , website. www.dla-lvu.de

Composition of Material

Ingredients

Meal replacement 1, chocolate nut

Ingredients: Soy protein isolate, whey protein concentrate, modified starch, low-fat cocoa powder, maltodextrin, soybean oil, corn dextrin, inulin, milk protein concentrate, potassium citrate, milk protein, aroma, potassium chloride, sodium phosphate, magnesium carbonate, calcium phosphate, sweetener: sodium cyclamate, sucralose, saccharin; thickeners xanthan gum, sodium L-ascorbate, iron pyrophosphate, DL-alpha-tocopheryl acetate, zinc sulfate, nicotinamide, retinyl acetate, calcium D-pantothenate, manganese sulfate, copper sulfate, cholecalciferol, pyridoxine hydrochloride, thiamine hydrochloride, phyloquinone, riboflavin, potassium iodide, pteroylmonoglutamic acid, sodium selenate, D-biotin, cyanocobalamin, antioxidant: alpha-tocopherol, rosemary extract

Meal replacement 2, vanilla

Ingredients: Oat flakes, milk protein, whey protein concentrate, calcium caseinate, soybean oil, glucomannan, flavouring, acidifier: citric acid; anti-caking agent: silicon dioxide; sweeteners: sucralose, acesulfame K; emulsifier: soy lecithin; potassium citrate, sodium chloride, magnesium oxide, ferrous fumarate, ascorbic acid, DL-alpha-tocopheryl acetate, zinc citrate, manganese gluconate, nicotinamide, maltodextrin, sodium molybdate, retinyl palmitate, L-selenomethionine, copper gluconate, calcium D-pantothenate, biotin, chromium-III-chloride, potassium iodide, cholecalciferol, folic acid, pyridoxine hydrochloride, thiamine hydrochloride, vitamin K1, riboflavin, cyanocobalamin

Meal replacement 3, choco

Ingredients: Soy protein isolate, milk protein, maltodextrin, low-fat cocoa powder, soybean oil, yoghurt powder, emulsifier lecithins (soy), flavouring, magnesium carbonate, thickener guar gum, potassium salts of orthophosphoric acid, magnesium hydroxide, thickener xanthan, anti-caking agent silicon dioxide, sweetener steviolglycosides from stevia, iron diphosphate, sodium chloride, L-ascorbic acid, DL-alpha-tocopheryl acetate, nicotinamide, zinc oxide, calcium D-pantothenate, manganese sulphate, copper carbonate, pyridoxine hydrochloride, thiamine mononitrate, colouring carotene, retinyl acetate, riboflavin, pteroylmonoglutamic acid, sodium selenite, potassium iodide, phytomenadione, D-biotin, cholecalciferol, cyanocobalamin

Note: The metrological traceability of temperature, mass and volume during production of the PT samples is ensured by DAkkS-compliant calibrated reference materials.

Minimum Sample Size / Homogeneity

A minimum sample size of 5 g is recommended for sample preparation.

The homogeneity tests were performed with sample sizes of 5 g (Microtracer analysis).

The mixture homogeneity before bottling was examined 10-fold by microtracer analysis. Homogeneity was sufficient with a probability of $\geq 25\%$ (excellent mixture) and a HorRat value in the range of acceptance (0,3 to 1,3).

The calculation of the repeatability standard deviations S_r of the participants was also used as an indicator of homogeneity. For all parameters except biotin the repeatability standard deviation was $\leq 9,4\%$. Thus, they were similar to corresponding repeatability standard deviations of precision data of the standardized methods (e.g. ASU methods / EN ISO methods).

Reference Values

All reference values were derived from the related PT round (for more details see final report).

Reference Values quantitative

Parameter	Vitamin B1 (as Thiamine-cation)	Vitamin B2 (as Riboflavin)	Vitamin B6 (as Pyridoxine)
	mg/100g	mg/100g	mg/100g
Number of results	10	12	11
Number of outliers	0	0	0
Assigned Value (X_{pt})	1,09	1,67	1,41
Robust standard deviation	0,278	0,378	0,348
Standard uncertainty	0,110	0,136	0,131
Target standard deviation σ_{pt}	0,156	0,222	0,200
Target range	0,775 – 1,40	1,23 – 2,12	1,01 – 1,81

Parameter	Vitamin B12 (as Cyanocobalamine)	Biotin*	Vitamin C (as Ascorbic acid)
	µg/100g	µg/100g	mg/100g
Number of resu	7	5	9°
Number of outliers	0	0	1
Assigned Value (X_{pt})	2,87	63,7	87,0
Robust standard deviation	1,32	36,8	11,8
Standard uncertainty	0,625	20,6	4,92
Target standard deviation σ_{pt}	0,632	18,2	9,13
Target range	1,61 – 4,14	27,2 - 100	68,8 - 105

° without outliers

* Due to the heterogeneity and low number of results, the evaluation was done for information only.

Parameter	Folic acid (as Pteroylmono- glutamic acid)	Niacin	Pantothenic acid
	µg/100g	mg/100g	mg/100g
Number of resu	8	9°	7
Number of outliers	0	1	0
Assigned Value (X_{pt})	190	16,6	5,83
Robust standard deviation	65,7	1,65	0,817
Standard uncertainty	29,0	0,688	0,386
Target standard deviation σ_{pt}	40,1	1,23	0,506
Target range	110 - 271	14,2 – 19,1	4,82 – 6,84

° without outliers

Intended Use

- for laboratory use only, no food!
- validation of analytical methods
- control sample for quality control charts
- test material for inter-laboratory comparisons
- no medical use

Storage Instructions and Handling Information

The material should be stored as stated on page 1. Before use of the material should be warmed up to room temperature. The content should be mixed thoroughly prior to subsampling (see minimum sample size above). The material should be weighed immediately after opening of the foil poche/bottle and closed again afterwards in order to avoid uptake of moisture. Frequent freezing and thawing should be avoided as this can lead to changes in the properties of the material. The expiry date of this RM is based on the current knowledge and applies only for proper storage conditions in the originally closed foil poche/bottle.

Safety Precautions

The usual laboratory safety precautions should be applied when working with the RM considering the type of ingredients, parameters and its concentration.

Data Source

The material was analyzed by 13 laboratories within the related proficiency test (PT). Different analytical methods have been used.

Various

The user must determine the suitability of this RM for its particular purpose. DLA makes no warranty of any kind, expressed or implied, other than its products meet all quality control standards set by DLA. We do not guarantee this product can be used for a special application.



created	approved (PT-Coordinator)	updated
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16 April 2025	16 April 2025	2 April 2026