

Product Information

– for professionals only –



XPhe LNAA minis



In Short

- XPhe LNAA minis are a Food for Special Medical Purposes (FSMP) for use in the dietary management of Phenylketonuria (PKU) or Hyperphenylalaninemia (HPA)
- enriched with a high content of Large Neutral Amino Acids (LNAAs)
- in tablet form – coated
- suitable from 18 years of age – should not be used in the time period before and during pregnancy
- highly concentrated Phe-free protein supplement
- highly purified L-amino acids
- with vitamins, minerals and trace elements
- low in calories: no carbohydrate – small amount of fat
- easy to swallow – ready to use – ideal also for “ready to go”
- neutral in smell and taste
- in convenient sachets: 1 sachet $\triangleq$ 25 tablets $\triangleq$ 10 g protein equivalent

Product Profile

XPhe LNAA minis are a highly concentrated mixture of highly purified L-amino acids free of Phenylalanine in tablet form, enriched with a high content of Large Neutral Amino Acids (LNAA).

GOOD TO KNOW LNAA

Large Neutral-Amino-Acids share the same transporter to cross the blood-brain-barrier as Phenylalanine and thereby help to reduce phenylalanine levels in the brain. European Guidelines state that there is insufficient evidence to support routine use of LNAA. The non-Phe LNAA tryptophan, tyrosine, histidine, methionine, threonine, leucine, isoleucine, and valine are suggested to compete with phenylalanine for transport across the intestinal mucosa, and the blood-brain-barrier. „Giving (non-Phe) LNAA are therefore considered to result in lower Phe and higher LNAA levels in the brain. Some centers prescribe LNAA in particular for individuals who struggle to control their blood Phe levels with dietary Phe restrictions alone.“ „Recent animal studies have shown LNAA to be as effective as the Phe-restricted diet to restore brain monoamines. Burlina et al. reported increased blood Tyr levels in 12 adults with PKU and improved adherence in taking LNAA rather than the regular protein substitutes. There is no data for children or during

pregnancy.“ Most people on this diet can eat regular bread, rice and pasta, but still only a very limited amount of animal products and legumes.

XPhe LNAA minis are a pressed and coated protein supplement.

XPhe LNAA minis allow a tasteless intake of the amino acids mixture. They do not leave an unpleasant aftertaste and do not cause breath malodour or belching.

The tablets can be consumed discreetly and directly, no preparation necessary.

XPhe LNAA minis offer more flexibility, e.g. concerning intake outside the home and with regard to a wider choice of drinks suitable for intake, without drawing attention to the PKU diet – a big plus with regard to compliance.

Since packed in sachets the daily taking is especially easy:

1 sachet $\triangleq$ 24 tablets $\triangleq$ 10 g protein eqv.

XPhe LNAA minis are supplemented with vitamins, minerals and trace elements. Suitable from 18 years of age.

CAVE: XPhe LNAA minis should not be used in the time period before and during pregnancy.

Convenience Product

XPhe LNAA minis are a convenient ready to use option for the intake of an amino acid mixture, also when on the way: discreetly, in tablet form.

Administration

XPhe LNAA minis should always be taken

Amino acids

XPhe LNAA minis	100 g	16,6 g/ 24 tab./ 1 sachet
L-Arginine	g 4,2	0,69
L-Histidine	g 4,1	0,68
L-Isoleucine	g 4,2	0,70
L-Leucine	g 6,3	1,05
L-Lysine	g 5,0	0,83
L-Methionine	g 6,6	1,09
L-Threonine	g 4,2	0,70
L-Tryptophan	g 8,3	1,38
L-Tyrosine	g 25	4,11
L-Valine	g 4,2	0,70

with a sufficient quantity of liquid and at best along with precalculated amounts of food.

Intake

The tablets should be swallowed unchewed as whole tablets. XPhe LNAA minis should always be taken with a sufficient quantity of liquid. The tablets are not intended to be dissolved in water or other drinks prior intake. XPhe LNAA minis are not meant to dissolve in the mouth.

We recommend to take the tablets in an upright position.

Once sachet is opened, the tablets should be taken within the next 6 hours.

XPhe LNAA minis are coated with a flavour- and odour-neutral layer – therefore they do not produce an unpleasant aftertaste or breath malodour and there is no annoying belching.

Thanks to their protective coating the tablets are easy to swallow. The coating is extremely thin and water-soluble. If it were to dissolve, the tablets would taste like a typical amino acid mixture.

XPhe LNAA minis are tooth-friendly. Intake of the coated tablets with water (including mineral water) contributes to oral hygiene and helps prevent possible tooth damage caused by caries.

Function XPhe LNAA minis are tablets with Large Neutral Amino Acids (LNAA), which allow a less restrictive diet.

Indication XPhe LNAA minis are a Food for Special Medical Purposes (FSMP) and as a protein supplement suitable for the dietary management of Phenylketon-

uria (PKU) or Hyperphenylalaninemia (HPA). Not recommended for the time period before and after pregnancy.

Dosage The daily total amount of amino acid mixture depends on age, body weight and individual medical condition/ Phenylalanine tolerance and should be re-examined and adjusted in accordance with the results of regular monitoring. The daily dosage of amino acid mixture should at best be divided into 3 single portions.

The **XPhe LNAA minis** diet can be supplemented with other amino acid mixtures from the **XPhe** range if protein intake through diet is insufficient.

The PKU-diet must be supplemented with energy, natural protein and other nutrients in prescribed quantities.

Important Notice Must only be used under medical supervision. Not for use as a sole source of nutrition. For enteral use only. Only for people with proven Phenylketonuria (PKU) or Hyperphenylalaninemia (HPA). Suitable from 18 years of age. Should not be used in the time period before and during pregnancy.

Reference:

- van Wegberg, AMJ et al. (2025). European guidelines on diagnosis and treatment of phenylketonuria: First revision. Molecular genetics and metabolism

NUTRITION INFORMATION

XPhe LNAA minis

100 g

24 tablets
(1 sachet)

Energy		kJ	1130	187
		kcal	268	44
Fat	g	1	0,2	
of which saturates	g	1	0,2	
Carbohydrate	g	0	0	
of which sugars	g	0	0	
Fibre	g	14	2,3	
Protein eqv.	g	60	10	
Amino acids	g	72	12	
Salt	g	0	0	

INGREDIENTS

L-tyrosine, bulking agents: microcrystalline cellulose & silicium dioxide, L-tryptophan, L-lysine acetate, L-methionine, L-leucine, L-valine, L-isoleucine, L-threonine, L-arginine, L-histidine, potassium carbonate, anti-caking agents: calcium silicate & magnesium stearate & magnesium carbonate, calcium carbonate, calcium phosphate, choline, glazing agents: E 464 & E 463, zinc sulphate, vitamin E, inositol, folic acid, ferrous sulphate, pantothenic acid, vitamin B6, vitamin B2, vitamin B1, vitamin C, L-carnitine, potassium iodide, cupric sulphate, vitamin A, chromium (III) chloride, niacin, sodium molybdate, vitamin K, sodium selenite, manganese sulphate, biotin, vitamin D, vitamin B12.

Vitamins

g protein

Vitamin A	µg	1200	199	20
Vitamin D3	µg	30	5	0,5
Vitamin E	mg	21	3,5	0,35
Vitamin K1	µg	96	16	1,6
Vitamin C	mg	150	25	2,5
Thiamin (Vit. B1)	mg	1,5	0,25	0,025
Riboflavin (Vit. B2)	mg	2,1	0,35	0,035
Niacin	mg	22,5	3,7	0,4
Niacin NE	mg	161	27	2,7
Vitamin B6	mg	2,3	0,4	0,04
Folic acid	µg	450	75	7,5
Vitamin B12	µg	6	1	0,1
Biotin	µg	60	10	1
Pantothenic acid	mg	7,5	1,2	0,12

Minerals

Potassium	mg	2280	378	38
Calcium	mg	1500	248	25
Phosphorus	mg	380	63	6
Magnesium	mg	450	75	7,5

Trace elements

Iron	mg	21	3,5	0,35
Zinc	mg	15	2,5	0,25
Copper	mg	2	0,3	0,03
Manganese	mg	6	1	0,1
Selenium	µg	90	15	1,5
Chromium	µg	105	17	1,8
Molybdenum	µg	105	17	1,8
Iodine	µg	270	45	4,5

FURTHER NUTRITION INFORMATION

L-Carnitine	mg	43	7	0,7
Choline	mg	155	26	2,6
myo-Inositol	mg	93	15	1,5

Delivery Unit	box, sachets (sa) 1 x 30 sa at 24 tablets = 498 g
Article Number	xx-001-25610
Delivery to	Pharmacies, clinics
Storage	Store in a cool, dry place.