

Vitaflo's first Glycomacropeptide (GMP)-based protein substitute for the dietary management of Tyrosinaemia (TYR)

TYR sphere20™ is designed to optimise adherence in TYR-

- * **Low Volume -** 20g Protein Equivalent (PE) in 140ml; Lower volume may aid in patient compliance¹.
- * Low Calorie Designed to support a healthy dietary intake and may assist in maintenance of weight within a healthy range.
- * Docosahexaenoic Acid (DHA) The only GMP-based product for TYR that contains the long chain polyunsaturated fatty acid; DHA. Patients on the low protein diet for TYR may be at risk of DHA deficiency.
- * **Diet Compliance -** Adherence to dietary management in TYR is more problematic than adherence to the medication².
- * **Taste -** GMP-based protein substitutes are regularly perceived to be more palatable than those that are amino acid based^{3,4}, which may aid dietary compliance.





	Per TYR sphere20 100g	Per TYR sphere20 35g sachet
Energy kJ kcal	1432 338	508 120
Fat g of which saturates g	4.7 1.0	1.6 0.35
DHA mg	314	110
Carbohydrate g of which sugars g	18 4.0	6.3 1.4
Protein g	56	20
L-Tyrosine mg	<30	<11
L-Phenylalanine mg	104	36
Salt g	2.0	0.70
Vitamins and minerals:		
Vitamin A (RE) µg	740	259
Vitamin D μg	14	5.0
Vitamin E (aTE) mg	15	5.3
Vitamin K µg	67	23
Vitamin C mg	74	26
Thiamin mg	1.7	0.60
Riboflavin mg	1.7	0.60
Vitamin B6 mg	1.7	0.60
Niacin mg (mg NE)	9.1 (28)	3.2 (9.8)
Folic acid µg	290	102
Vitamin B12 μg	4.6	1.6
Biotin µg	36	13
Pantothenic acid mg	5.7	2.0
Sodium mg mmol	810 35	283 12
Potassium mg mmol	670 17	234 5.9
Chloride mg mmol	20 0.56	7.0 0.20
Calcium mg mmol	1140 29	399 10
Phosphorus mg mmol	1180 38	413 13
Magnesium mg mmol	330 13	115 4.6
Iron mg	21	7.4
Zinc mg	21	7.4
Copper mg	1.7	0.60
Manganese mg	1.1	0.40
Selenium µg	86	30
Chromium µg	34	12
Molybdenum µg	57	20
Iodine μg	240	84
Choline mg	570	200

Osmolality: TYR sphere20 + 120ml = 1000mOsm/kg.

Food for special medical purposes

TYR sphere™ is a powdered, low phenylalanine (Phe) and low tyrosine protein substitute containing a balanced mix of glycomacropeptide (GMP) isolate, essential and non-essential amino acids, carbohydrate, fat, vitamins, minerals and DHA. With sugars and sweetener. Not for use as a sole source of nutrition. For enteral use only.

Indications

For use in the dietary management of Tyrosinaemia (TYR) from **3 years of age onwards.**

TYR sphere20 is available in Red Berry

Preparation Guidelines TYR sphere 20:



1. Measure 120ml of cold water into the shaker.



3. Secure lid and shake until the powder is fully dissolved.



Add 1 sachet of TYR sphere20.



4. Shake and consume immediately.

Allergen Declaration

Contains fish (tuna oil), soya (soya lecithin), milk (milk protein).

Pack Size/Weight

TYR sphere20 30 x 35g e sachets

Store in a cool, dry place. Sachets are designed for single use and should be used immediately once opened.



Vitaflo's free home pharmacy service.

Call 1800 230 889 or email v2u@vitaflo.com.au to register for this convenient and time saving delivery service.

References

1. Macdonald A, Lilburn M, Cochrane, Davies P, Daly A, Asplin D, Hall SK, Cousins A, Chakrapani A, Robinson P and Lee P. A new, low-volume protein substitute for teenagers and adults with phenylketonuria. *J. Inherit. Metab. Dis.* 2004; **27** (2): 127-135.

2. Malik, S., NiMhurchadha, S, Jackson, C., Eliasson, L., Weinman, J., Roche, S. and Walter J., Treatment Adherence in Type 1 Hereditary Tyrosinaemia (HT1): A Mixed-Method Investigation into the Beliefs, Attitudes and Behaviour of Adolescent Patients, Their Families and Their Health-Care Team, in JIMD Reports. 2015.

3. Van Calcar, SC. et al. Improved nutritional management of phenylketonuria by using a diet containing glycomacropeptide compared with amino acids. *Am J Clin Nutr.* 2009; **89** (4): 1068 - 77 4. Daly, A. et al. SSIEM abstract 2016: Impact of the amino acid profile of casein glycomacropeptide on metabolic control in children in PKU. 2016

*Phe (Phenylalanine)



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