

# WOMBAROO

## OTTER MILK REPLACER <sup>1,2</sup>

### TYPICAL ANALYSIS (Powder)

Protein	30%
Fat	50%
Carbohydrate	13%
Ash	4%
Moisture	3%
Energy (ME)	26 MJ/kg

**INGREDIENTS:** Whole milk solids, whey protein, casein, milk fat, vegetable oils, omega-3 and omega-6 fatty acids, taurine, vitamins and minerals.

**PACK SIZE:** 2 & 5kg Net.

**DIRECTIONS FOR USE:** To make 1 litre of milk mix 300g of powder with 750ml of preboiled warm water. Add about half of the water first, mix to a paste then make up to 1 litre with remaining water and mix thoroughly. An electric whisk can be used for mixing.

Feed **Impact Colostrum Supplement** to new-borns that did not receive sufficient maternal colostrum.

### TYPICAL COMPOSITION PER LITRE OF PREPARED MILK

Protein	90g	Vitamin E	22mg	Folic Acid	1.5mg	Magnesium	130mg
Fat	148g	Vitamin K	1.7mg	Vitamin B <sub>12</sub>	30µg	Zinc	13mg
-Omega 3	6.7g	Vitamin C	38mg	Biotin	130µg	Iron	8.1mg
-Omega 6	15g	Thiamine	11mg	Choline	120mg	Manganese	7.8mg
Carbohydrate	44g	Riboflavin	3.0mg	Calcium	2.8g	Copper	1.8mg
Energy (ME)	7.7MJ	Niacin	45mg	Phosphorus	2.1g	Iodine	160µg
Taurine	600mg	Pantothenic Acid	17mg	Potassium	1100mg	Selenium	40µg
Vitamin A	2300IU	Pyridoxine	3.8mg	Sodium	500mg		
Vitamin D <sub>3</sub>	270IU						

**FEED VOLUME:** Estimates of feed volume are based on the animal being maintained in a thermo-neutral environment with milk as the only source of food. Milk volume in ml per day for an animal of body weight W kg is given by the equation for Carnivora<sup>3</sup>, with an energetic scaling factor of 1.95:

$$1.95 \times 336W^{0.738}$$

Body Weight (g)	Feed Volume (mL/day)	Body Weight (g)	Feed Volume (mL/day)	Body Weight (g)	Feed Volume (mL/day)
40	8	140	20	400	43
50	9	160	22	450	47
60	11	180	24	500	51
70	12	200	26	600	58
80	13	220	28	700	65
90	14	250	31	800	72
100	16	300	35	900	79
120	18	350	39	1000	85

**GROWTH & DEVELOPMENT:** Typical birth weight of Asian Small-clawed Otter is 45-63g. Average daily weight gain in this species is typically 6-15g per day in the first 2 months.

### REFERENCES

1. Jenness, R. & R.E Sloan (1970). The composition of milks of various species: a review. In *Dairy Sci. Abstr.* (Vol. 32, pp. 599-612).
2. Ben Shaul, D. M. (1963). The composition of the milk of wild animals. *International Zoo Yearbook*, 4(1), 333-342.
3. Hayssen V. & R.C. Lacey (1985). Basal Metabolic Rates in Mammals. *Comp. Biochem. Physiol.* Vol 81A, No.4:741-754.