ROYAL CANIN Veterinary Diet™/MC

SUMMARY

ROYAL CANIN Veterinary Diet™/MC canine RENAL LP™/MC (low protein canned), RENAL LP 11™/MC (low protein dry), RENAL MP™/MC (medium protein canned), and RENAL MP 14™/MC (medium protein dry), are formulated with restricted phosphorus levels and reduced protein contents to aid in the dietary management of chronic renal failure in dogs.

Two levels of protein, medium and low, are offered in order to permit a staged approach to the management of renal failure. In addition, by combining diets, it is possible to vary the protein delivery to meet the individual requirements of dogs of different body weights. Therapy may be individualized based on the severity of clinical signs and changes in laboratory parameters.

INDICATIONS

- For the management of chronic renal failure in adult dogs

CONTRAINDICATIONS

- Growing puppies
- Pregnant or lactating bitches

NUTRITIONAL DIFFERENCES

(as compared to typical commercial pet foods)

- Highly restricted phosphorus content
- Restricted protein content
- High quality protein
- High energy content (using non-protein sources)
- Moderately restricted sodium levels
- Enhanced levels of B-vitamins
- Enriched with antioxidants

RATIONALE

Dietary management of dogs with chronic renal failure (CRF) is aimed at improving clinical symptoms, minimizing vitamin, mineral, electrolytes and acid-base imbalances, and slowing disease progression. In order to achieve these goals, levels of phosphorus, protein, calcium, sodium, B-complex vitamins, and fat have been modified.

Energy

In dogs with chronic renal failure, it is important to provide sufficient energy to minimize catabolism of either dietary or endogenous protein. Protein catabolism contributes to the production of nitrogenous waste products and the clinical symptomology of uremia. Non-protein energy can be provided as either carbohydrate or fat. Fat is preferred for the patient with renal failure as it aids palatability and increases the energy density of the diet. This translates to less total volume of food fed on a daily basis compared with maintenance diets RENAL LP™/MC (low protein canned), RENAL LP 11™/MC (low protein dry), RENAL MP™/MC (medium protein canned), and RENAL MP 14™/MC (medium protein dry) are formulated with relatively high fat contents and energy density.

Protein

Dogs with chronic renal failure have a reduced ability to excrete both nitrogenous and non-nitrogenous protein catabolites. The accumulation of these metabolic by-products in the circulation is one of the major causes of uremic symptoms and laboratory abnormalities with renal failure.

Clinical studies have shown that modifying dietary protein intake can reduce blood urea nitrogen (an index of nitrogenous waste products) and provide clinical benefits. In addition to reducing the level of nitrogenous waste products, protein restriction may also reduce the intake of dietary phosphorus. Protein restriction also decreases the renal solute load, thereby, lessening the severity of the polyuria and polydipsia.

Although protein restriction has positive effects with respect to the amelioration of clinical signs, care must be taken to ensure that the patient still receives adequate dietary protein to meet or exceed the minimum daily requirements. Very low protein diets, coupled with poor food intake, have been associated with protein malnutrition, loss of lean body mass, and hypoalbuminemia.

It has been recommended that dogs with chronic renal failure should receive at least 2 grams of protein per kilogram body weight per day. In this scenario large breed dogs (i.e. > 80 lbs.) may actually be protein malnourished if fed severely protein restricted diets. Large breed patients, even with late stage renal failure, would most appropriately receive RENAL MP™/MC (medium protein canned) or RENAL MP 14™/MC (medium protein dry) rather than RENAL LP™/MC (low protein canned) or RENAL LP 11™/MC (low protein dry).

Minerals

Dietary phosphorus restriction has been shown to slow the progression of renal disease. Hyperphosphatemia is a common finding in chronic renal failure. Increased serum phosphorus concentrations lead to a decrease in the activity of the enzyme alpha-hydroxylase in the kidney contributing to a decreased production of calcitriol and an increased production of parathyroid hormone. Parathyroid hormone is considered a uremic toxin. It contributes to anemia, neurotoxicity, soft tissue calcification, and renal osteodystrophy. Phosphorus restriction decreases the production of parathyroid hormone and slows the progression of renal disease.

Systemic hypertension has been reported in dogs with chronic renal failure. Hypertension has also been implicated in the progression of renal failure. Sodium homeostasis is primarily regulated by the kidney. With advanced renal failure, the kidneys can no longer excrete adequate amounts of sodium. The excess dietary sodium may contribute to hypertension. Therefore, dietary sodium intake should be controlled to assist the management of hypertension.

Special Tips:

- Inappetance is a common symptom in dogs with renal failure. Therefore, food intake should be monitored to ensure adequate daily caloric intake. Warming the food to body temperature and adding water to the dry diets may improve palatability. Try feeding "little and often" and, if necessary, enteral feeding should be considered.
- Dogs with renal disease are at risk of becoming dehydrated. Therefore, counsel the owner to be aware of this risk. In addition, accommodations may need to be made to allow the dog outdoor access to urinate more frequently.
- Restricting protein intake reduces renal solute load and reduces urine volume. Dogs in the early stages of renal failure that present with polyuria/polydypsia as the only clinical symptom will often improve with the reduction in protein intake on RENAL LP™/MC (low protein canned), RENAL LP 11™/MC (low protein dry), RENAL MP™/MC (medium protein canned), or RENAL MP 14™/MC (medium protein dry) diets.
- Changing from a regular maintenance diet to RENAL MP™/MC (medium protein canned) and RENAL MP 14™/MC (medium protein dry) represents a significant reduction in protein intake. Where most maintenance diets contain 70-100 grams of protein per 1000 kcal, RENAL MP™/MC (medium protein canned) and RENAL MP 14™/MC (medium protein dry) contain approximately 50 and 40 grams of protein per 1000 kcal, respectively. Changing to RENAL LP™/MC (low protein canned) or RENAL LP 11™/MC (low protein dry) diets may not be necessary initially to obtain significant improvement in clinical signs. Dogs may prefer RENAL MP™/MC (medium protein canned) or RENAL MP 14™/MC (medium protein dry) because of the higher protein contents compared to RENAL LP™/MC (low protein canned) or RENAL LP 11™/MC (low protein dry) diets.
- Even if the goal is to eventually switch the dog onto RENAL LP™/MC (low protein canned) or RENAL LP 11™/MC (low protein dry), it is helpful for the dog to make this transition by initially changing to RENAL MP™/MC (medium protein canned) or RENAL MP 14™/MC (medium protein dry) diet for 7-10 days before transitioning to the higher protein restriction of RENAL LP™/MC or RENAL LP 11™/MC (low protein dry) diets.

RENAL LP™/MC (low protein canned), RENAL LP 11™/MC (low protein dry), RENAL MP™/MC (medium protein canned) and RENAL MP 14™/MC (medium protein dry) diets have similar nutrient profiles when compared on an energy basis with the exception of protein. Having two different protein levels, each in both dry and canned format, allows protein delivery to be tailored to the individual dog based on the dog's body size and the severity of clinical signs of uremia.

GENERAL FEEDING RECOMMENDATIONS

- Daily feeding recommendations may be divided into two to four meals.
- Fresh water should be available at all times.
- Individual requirements may vary depending on breed, age, sex, environment, and activity level.
- **Caution:** Ensure that patients receive adequate daily protein to avoid protein malnutrition.

FEEDING GUIDE - RENAL MP 14 TM/MC

FEEDING RECOMMENDATIONS FOR ADULT DOG MAINTENANCE				
Body Weight		Suggested Caloric Intake	Daily Feeding	
lb	kg	kcal/day	Canned Only (cans/day)	Dry Only (8-oz cups/day)
5	2.3	231	1/2	2/3
10	4.5	389	3/4	1 1/4
20	9.1	653	1 1/4	2
30	13.6	886	1 2/3	2 2/3
40	18.1	1099	2	3 1/4
50	22.7	1299	2 1/2	3 3/4
60	27.2	1489	2 3/4	4 1/2
70	31.8	1672	3	5
80	36.3	1848	3 1/2	5 1/2
90	40.8	2019	3 3/4	6
100	45.4	2185	4	6 1/2
110	49.9	2347	4 1/3	7
120	54.4	2505	4 2/3	7 1/2
130	59.0	2660	5	8
140	63.5	2812	5 1/4	8 1/3
150	68.0	2961	5 1/2	8 3/4

FEEDING GUIDE - RENAL LP 11 TM/MC

FEEDING RECOMMENDATIONS FOR ADULT DOG MAINTENANCE				
Body Weight		Suggested Caloric Intake	Daily Feeding	
lb	kg	kcal/day	Canned Only (cans/day)	Dry Only (8-oz cups/day)
5	2.3	231	1/3	3/4
10	4.5	389	2/3	1 1/3
20	9.1	653	1	2 1/3
30	13.6	886	1 1/3	3 1/4
40	18.1	1099	1 3/4	4
50	22.7	1299	2	4 2/3
60	27.2	1489	2 1/3	5 1/4
70	31.8	1672	2 2/3	6
80	36.3	1848	2 3/4	6 1/2*
90	40.8	2019	3 1/4	7 1/4*
100	45.4	2185	3 1/3	7 3/4*
110	49.9	2347	3 2/3	8 1/3*
120	54.4	2505	4	8 3/4*
130	59.0	2660	4 1/4	9 1/3*
140	63.5	2812	4 1/3	10 *
150	68.0	2961	4 2/3	10 1/2*

*If fed according to daily energy requirements, the protein intake is less than 2g/kgBW/day, which may place the patient at risk of protein malnutrition.

PRODUCT DESCRIPTION

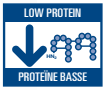
ROYAL CANIN Veterinary Diet™/MC canine RENAL LP™/MC is a highly palatable, complete, and balanced food for adult dogs with chronic renal failure. The protein content of the diet is low and of high biologic value. Only 12% of the calories in RENAL LP™/MC diet are derived from protein compared with 30-40% in a typical canned dog food. In addition, phosphorus is restricted, sodium is moderately restricted, and levels of B-complex vitamins are enhanced.

NUTRITION STATEMENT

RENAL LP™/MC is intended for intermittent or supplemental feeding only.

A restricted phosphorus intake is essential to slow the development of renal secondary hyperparathyroidism.

High energy density utilizing dietary fat to improve palatability and reduce feeding volumes in inappetant pets.



Restricted levels of high biological value protein to minimize the production of nitrogenous waste products and improve the clinical signs associated with renal failure.

GUARANTEED ANALYSIS

Crude Protein, (min)	5.0%
Crude Fat, (min)	7.5%
Crude Fiber, (max)	1.5%
Moisture, (max)	70.0%
Phosphorus, (min)	0.06%

METABOLIZABLE ENERGY

From Protein	11.8%
From Fat	51.7%
From Carbohydrate	36.6%

Approximately 643 kcal per 13.6 oz (385 g) can (167 kcal per 100 g).

INGREDIENTS

WATER, MEAT BY-PRODUCTS, RICE, ANIMAL FAT (PRESERVED WITH BHA/BHT), TRACE MINERALS (CALCIUM CARBONATE, POTASSIUM CHLORIDE, CALCIUM HYDROXIDE, FERROUS SULFATE, MAGNESIUM OXIDE, MANGANOUS SULFATE, ZINC SULFATE, COPPER SULFATE, CALCIUM IODATE), CELLULOSE POWDER, DRIED EGG PRODUCT, NATURAL FLAVORS, GUAR GUM, VITAMINS (DL-ALPHA TOCOPHEROL ACETATE [SOURCE OF VITAMIN E], CHOLINE CHLORIDE, VITAMIN A ACETATE, THIAMINE MONONITRATE [VITAMIN B1], BIOTIN, D-CALCIUM PANTOTHENATE, VITAMIN B12 SUPPLEMENT, NIACIN, SELENIUM, RIBOFLAVIN VITAMIN B2], PYRIDOXINE HYDROCHLORIDE [VITAMIN B6], VITAMIN D3 SUPPLEMENT, FOLIC ACID), TAURINE*.

*Not recognized as an essential nutrient by the AAFCO Dog Food Nutrient Profiles.

TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	61.81	
Protein	g	6.13	36.71
Fat	g	11.43	66.44
Carbohydrate	g	19.09	114.31
Ash	g	1.55	9.28
Crude Fiber	g	1.6	9.6
Minerals			
Calcium	g	0.30	1.80
Phosphorus	g	0.09	0.54
Sodium	g	0.03	0.18
Chloride	g	0.60	3.59
Potassium	g	0.32	1.92
Magnesium	g	0.03	0.18
Copper	mg	0.71	4.26
Iron	mg	7.17	42.92
Zinc	mg	5.09	30.47
Manganese	mg	4.87	29.15
Iodine	mg	0.055	0.329
Vitamins			
Vitamin A	IU	1630	9760
Vitamin D3	IU	26.5	158.7
Vitamin E	mg	35.90	214.97
Thiamine (B1)	mg	1.50	8.98
Riboflavin (B2)	mg	1.10	6.59
Niacin	mg	3.52	21.08
Pyridoxine (B6)	mg	0.25	1.50
Pantothenic Acid	mg	2.69	16.11
Folic Acid	mg	0.080	0.479
Cobalamin (B12)	mg	0.0064	0.0383
Biotin	mg	0.05	0.3
Choline	mg	110	659
Fatty Acids			
Linoleic acid	g	0.34	2.04
Amino Acids			
Arginine	g	0.26	1.56
Lysine	g	0.26	1.56
Methionine	g	0.12	0.72
Methionine + Cystine	g	0.20	1.20
Taurine	g	0.210	1.257

ORDERING INFORMATION

Can	Weight		Item Code
	oz	g	
24 per case	13.6	385	K60410

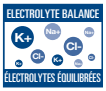
PRODUCT DESCRIPTION

ROYAL CANIN Veterinary Diet™/MC canine RENAL LP 11™/MC is a highly palatable, complete food for adult dogs with chronic renal failure. The protein content of the diet is low and of high biologic value. Only 14% of the calories in RENAL LP 11™/MC are derived from protein compared with 30-40% in a typical dog food. In addition, phosphorus is restricted, sodium is moderately restricted, and levels of B-complex vitamins are enhanced.

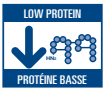
NUTRITION STATEMENT

RENAL LP 11™/MC is intended for intermittent or supplemental feeding only.

A restricted phosphorus intake is essential to slow the development of renal secondary hyperparathyroidism.



Moderately restricted in sodium concentration to reduce renal hypertension and supplemented with B-vitamins to compensate for urinary losses.



Restricted levels of high biological value protein to minimize the production of nitrogenous waste products and improve the clinical signs associated with renal failure.

Naturally preserved with mixed tocopherols, rosemary extract, and citric acid.

GUARANTEED ANALYSIS

Crude Protein, (min)	11.4%
Crude Fat, (min)	10.7%
Crude Fiber, (max)	6.2%
Moisture, (max)	10.5%
Phosphorus, (min)	0.25%

METABOLIZABLE ENERGY

From Protein	13.4%
From Fat	28.7%
From Carbohydrate	57.9%

Approximately 283 kcal per 8-oz cup; 399 kcal per 100 g; 71 g per cup.

INGREDIENTS

RICE, GROUND CORN, CHICKEN FAT, CHICKEN MEAL, CELLULOSE POWDER, NATURAL FLAVORS, CORN GLUTEN MEAL, DRIED EGG POWDER, POTASSIUM CHLORIDE, CALCIUM CARBONATE, CHOLINE CHLORIDE, TAURINE*, VITAMINS [DL-ALPHA TOCOPHEROL ACETATE (SOURCE OF VITAMIN E), BIOTIN, D-CALCIUM PANTOTHENATE, NIACIN, PYRIDOXINE HYDROCHLORIDE (VITAMIN B6), VITAMIN A ACETATE, VITAMIN D3 SUPPLEMENT, THIAMINE MONONITRATE (VITAMIN B1), VITAMIN B12 SUPPLEMENT, RIBOFLAVIN (VITAMIN B2), FOLIC ACID], TRACE MINERALS [ZINC OXIDE, FERROUS SULFATE, COPPER SULFATE, MANGANOUS OXIDE, SODIUM SELENITE, CALCIUM IODATE], PRESERVED WITH NATURAL MIXED TOCOPHEROLS, ROSEMARY EXTRACT, AND CITRIC ACID.

*Not recognized as an essential nutrient by the AAFCO Dog Food Nutrient Profiles.

TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	9	
Protein	g	13.4	33.6
Fat	g	12.7	31.9
Carbohydrate	g	57.7	144.7
Ash	g	3.0	7.5
Crude Fiber	g	4.2	10.5
Total Dietary Fiber	g	8.0	20.1
Minerals			
Calcium	g	0.45	1.13
Phosphorus	g	0.27	0.68
Sodium	g	0.07	0.18
Chloride	g	0.50	1.25
Potassium	g	0.60	1.50
Magnesium	g	0.05	0.13
Copper	mg	3.5	8.8
Iron	mg	11.4	28.6
Zinc	mg	26.5	66.5
Manganese	mg	8.3	20.8
Iodine	mg	0.53	1.33
Selenium	mg	0.049	0.123
Vitamins			
Vitamin A	IU	1800	4515
Vitamin D3	IU	150	376
Vitamin E	mg	25	63
Thiamine (B1)	mg	0.5	1.3
Riboflavin (B2)	mg	0.4	1.0
Niacin	mg	1.5	3.8
Pyridoxine (B6)	mg	0.9	2.3
Pantothenic Acid	mg	3.5	8.8
Folic Acid	mg	0.9	2.3
Cobalamin (B12)	mg	0.007	0.018
Biotin	mg	0.30	0.75
Choline	mg	300	752
Fatty Acids			
Linoleic acid	g	3.05	7.6
Arachidonic acid	g	0.06	0.15
Amino Acids			
Arginine	g	0.8	2.0
Lysine	g	0.55	1.4
Methionine	g	0.3	0.8
Methionine + Cystine	g	0.53	1.3
Taurine	g	0.2	0.5

ORDERING INFORMATION

Bag Size	Weight		Item Code
	lb	kg	
Small	2.5	1.14	27003
Medium	5.5	2.5	27006
Large	16	7.26	27016
Extra Large	n/a	n/a	n/a

PRODUCT DESCRIPTION

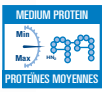
ROYAL CANIN Veterinary Diet™/MC canine RENAL MP™/MC is a highly palatable, complete, and balanced food for adult dogs with chronic renal failure. The protein content of the diet is moderately restricted and of high biologic value. Only 18% of the calories in RENAL MP™/MC are derived from protein compared with 30-40% in a typical dog food. In addition, phosphorus is restricted, sodium is moderately restricted, and levels of B-complex vitamins are enhanced.

NUTRITION STATEMENT

RENAL MP™/MC is intended for intermittent or supplemental feeding only.

A restricted phosphorus intake is essential to slow the development of renal secondary hyperparathyroidism.

High energy density utilizing dietary fat to improve palatability and reduce feeding volumes in inappetant pets.



Moderately restricted levels of high biological value protein to minimize the production of nitrogenous waste products and improve the clinical signs associated with renal failure.

GUARANTEED ANALYSIS

Crude Protein, (min)	6.0%
Crude Fat, (min)	8.0%
Crude Fiber, (max)	1.0%
Moisture, (max)	74.0%
Phosphorus, (min)	0.06%

METABOLIZABLE ENERGY

From Protein	18.4%
From Fat	61.4%
From Carbohydrate	20.2%

Approximately 532 kcal per 13.4 oz (380 g) can (140 kcal per 100 g).

INGREDIENTS

MEAT BY-PRODUCTS, WATER, CHICKEN BY-PRODUCTS, RICE, ANIMAL FAT (PRESERVED WITH BHA/BHT), TRACE MINERALS (CALCIUM CARBONATE, POTASSIUM CHLORIDE, TETRAPOTASSIUM PYROPHOSPHATE, CALCIUM HYDROXIDE, MAGNESIUM OXIDE, MANGANESE SULFATE, ZINC SULFATE, FERROUS SULFATE, COPPER SULFATE, CALCIUM IODATE), GUAR GUM, CARRAGEENAN, TAURINE*, VITAMINS (DL-ALPHA TOCOPHEROL ACETATE [SOURCE OF VITAMIN E], CHOLINE CHLORIDE, THIAMINE MONONITRATE [VITAMIN B1], D-CALCIUM PANTOTHENATE, BIOTIN, NIACIN, RIBOFLAVIN [VITAMIN B2], VITAMIN D3 SUPPLEMENT, PYRIDOXINE HYDROCHLORIDE [VITAMIN B6], VITAMIN B12 SUPPLEMENT, FOLIC ACID, SELENIUM), NATURAL FLAVORS, DL-METHIONINE.

*Not recognized as an essential nutrient by the AAFCO Dog Food Nutrient Profiles.

TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	69.11	
Protein	g	8.1	57.9
Fat	g	12.04	86
Carbohydrate	g	8.9	63.6
Ash	g	1.85	13.21
Crude Fiber	g	0.06	0.43
Minerals			
Calcium	g	0.28	2.00
Phosphorus	g	0.13	0.93
Sodium	g	0.06	0.43
Chloride	g	0.50	3.57
Potassium	g	0.36	2.57
Magnesium	g	0.03	0.21
Copper	mg	0.68	4.86
Iron	mg	25.39	181.36
Zinc	mg	7.95	56.79
Manganese	mg	6.28	44.86
Iodine	mg	0.068	0.486
Vitamins			
Vitamin A	IU	1060	7571
Vitamin D3	IU	26.6	190
Vitamin E	mg	15.50	110.71
Thiamine (B1)	mg	0.40	2.86
Riboflavin (B2)	mg	0.60	4.29
Niacin	mg	3.78	27.00
Pyridoxine (B6)	mg	0.26	1.86
Pantothenic Acid	mg	1.77	12.64
Folic Acid	mg	0.110	0.786
Cobalamin (B12)	mg	0.0075	0.0536
Biotin	mg	0.020	0.143
Choline	mg	128	914
Fatty Acids			
Linoleic acid	g	1.12	8
Amino Acids			
Arginine	g	0.48	3.43
Lysine	g	0.47	3.36
Methionine	g	0.22	1.57
Methionine + Cystine	g	0.32	2.28
Taurine	g	0.180	1.286

ORDERING INFORMATION

Can	Weight		Item Code
	oz	g	
24 per case	13.4	380	K60407

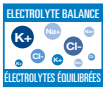
PRODUCT DESCRIPTION

ROYAL CANIN Veterinary Diet™/MC canine RENAL MP 14™/MC is a highly palatable, complete food for adult dogs with chronic renal failure. The protein content of the diet is moderately restricted and is of high biologic value. Only 16% of the calories in RENAL MP 14™/MC are derived from protein compared with 30-40% in a typical dog food. In addition, phosphorus is restricted, sodium is moderately restricted, and levels of B-complex vitamins are enhanced.

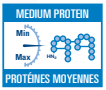
NUTRITION STATEMENT

RENAL MP 14™/MC is intended for intermittent or supplemental feeding only.

A restricted phosphorus intake is essential to slow the development of renal secondary hyperparathyroidism.



Moderately restricted in sodium concentration to reduce renal hypertension and supplemented with B-vitamins to compensate for urinary losses.



Restricted levels of high biological value protein to minimize the production of nitrogenous waste products and improve the clinical signs associated with renal failure.

Naturally preserved with mixed tocopherols, rosemary extract, and citric acid.

GUARANTEED ANALYSIS

Crude Protein, (min)	14.7%
Crude Fat, (min)	13%
Crude Fiber, (max)	4%
Moisture, (max)	11%
Phosphorus, (min)	0.25%

METABOLIZABLE ENERGY

From Protein	16.0%
From Fat	32.3%
From Carbohydrate	51.7%

Approximately 336 kcal per 8-oz cup, 418 kcal per 100 g, 80 g per 8-oz cup.

INGREDIENTS

RICE, GROUND CORN, CHICKEN FAT, CHICKEN MEAL, GROUND WHEAT, NATURAL FLAVORS, CORN GLUTEN MEAL, CELLULOSE POWDER, DRIED EGG POWDER, POTASSIUM CHLORIDE, CALCIUM CARBONATE, CHOLINE CHLORIDE, TAURINE*, VITAMINS [DL-ALPHA TOCOPHEROL ACETATE (SOURCE OF VITAMIN E), BIOTIN, D-CALCIUM PANTOTHENATE, NIACIN, PYRIDOXINE HYDROCHLORIDE (VITAMIN B6), VITAMIN A ACETATE, VITAMIN D3 SUPPLEMENT, THIAMINE MONONITRATE (VITAMIN B1), VITAMIN B12 SUPPLEMENT, RIBOFLAVIN (VITAMIN B2), FOLIC ACID], TRACE MINERALS [ZINC OXIDE, FERROUS SULFATE, COPPER SULFATE, MANGANOUS OXIDE, SODIUM SELENITE, CALCIUM IODATE], PRESERVED WITH NATURAL MIXED TOCOPHEROLS, ROSEMARY EXTRACT, AND CITRIC ACID.

*Not recognized as an essential nutrient by the AAFCO Dog Food Nutrient Profiles.

TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	9	
Protein	g	16.7	40.0
Fat	g	15.0	35.9
Carbohydrate	g	54.0	129.2
Ash	g	3.3	7.9
Crude Fiber	g	2.0	4.8
Total Dietary Fiber	g	5.5	13.2
Minerals			
Calcium	g	0.50	1.20
Phosphorus	g	0.36	0.86
Sodium	g	0.09	0.22
Chloride	g	0.48	1.15
Potassium	g	0.60	1.44
Magnesium	g	0.06	0.14
Copper	mg	3.5	8.4
Iron	mg	13.5	32.3
Zinc	mg	26.5	63.4
Manganese	mg	8.5	20.3
Iodine	mg	0.52	1.24
Selenium	mg	0.047	0.112
Vitamins			
Vitamin A	IU	1800	4308
Vitamin D3	IU	150	359
Vitamin E	mg	25	60
Thiamine (B1)	mg	0.5	1.2
Riboflavin (B2)	mg	0.4	1.0
Niacin	mg	1.5	3.6
Pyridoxine (B6)	mg	0.9	2.2
Pantothenic Acid	mg	3.5	8.4
Folic Acid	mg	0.9	2.2
Cobalamin (B12)	mg	0.007	0.017
Biotin	mg	0.30	0.72
Choline	mg	300	718
Fatty Acids			
Linoleic acid	g	3.45	8.3
Arachidonic acid	g	0.06	0.14
Amino Acids			
Arginine	g	0.95	2.3
Lysine	g	0.7	1.7
Methionine	g	0.36	0.9
Methionine + Cystine	g	0.58	1.4
Taurine	g	0.2	0.5

ORDERING INFORMATION

Bag Size	Weight		Item Code
	lb	kg	
Small	2.5	1.14	27103
Medium	6	2.72	27106
Large	17.5	7.95	27118
Extra Large	n/a	n/a	n/a

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*Dry name only. Wet name excludes number.

CANINE

NOTES

ROYAL CANIN VETERINARY DIET