

NIH SPECIFICATION

Open Formula Extruded Nonhuman Primate Diet

Ingredients

<u>Ingredients</u>	<u>Percentage by Weight</u>
Wheat (10% protein)	28.00
Alfalfa meal (17%)	3.00
Ground oat mill by-product	22.50
Soybean meal (49% protein)	8.00
Fish meal (70% protein)	6.00
Brewers dried yeast	2.00
Dried whey product	3.00
Ground whole kernel yellow corn	17.00
Sugar	2.90
Soybean oil	3.60
Salt	.30
Dicalcium phosphate	.50
Calcium carbonate	1.20
Vitamin premix	1.00
Mineral premix	1.00
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	100.00

Mineral Fortification per ton (2,000 lb.) of finished product.

<u>Mineral</u>	<u>Amount</u>	<u>Source</u>
Cobalt	400.0 mg	Cobalt carbonate
Copper	2.0 g	Copper sulfate
Iron	30.0 g	Iron sulfate
Magnesium	400.0 g	Magnesium oxide
Manganese	14.0 g	Manganous oxide
Potassium	900.0 g	Potassium bicarbonate
Zinc	21.3 g	Zinc oxide
Iodine	1.8 g	Calcium iodate

Vitamin Fortification per ton (2,000 lb.) of finished product.

<u>Vitamin</u>	<u>Amount</u>	<u>Source</u>
A palmitate	9,700,000 IU	Vitamin A acetate or
D <sub>3</sub>	5,400,000 IU	D activated animal sterol
K	8.0 g	Menadione activity
dl Tocopheryl acetate	37.0 g	
Choline	264.0 g	Choline chloride
Folic acid	17.3 g	
Niacin	52.0 g	
Pantothenic acid	50.0 g	d-Calcium pantothenate
Pyridoxine	8.0 g	Pyridoxine hydrochloride

Riboflavin	4.8 g	Riboflavin supplement
Thiamin	18.0 g	Thiamin monoitrate
B <sub>12</sub> supplement	13,333.0 ug	
Biotin	100.0 mg	d-biotin
D L Methionine	22.7 g	
Vitamin C*	2270.0 g	L-ascorbyl-2-polyphosphate

\* Dusted on the outside of biscuits

These concentrations of vitamins and minerals shall be added to the ration via two separate (vitamin and mineral) premixes. In the case of mineral fortification, the actual amount of each element required is specified. Therefore, the contractor shall adjust the amount of each compound used in the premix according to its mineral concentration.

### Nutrient Standards

Micro Analysis - The total calculated concentration of nutrients in the ration from ingredients and from the fortifications at the time of manufacture should be as follows:

Crude protein	%	Minimum	15.5
Crude fat	%	Minimum	5.0
Crude fiber	%	Maximum	8.0
Ash	%	Maximum	8.0
Linoleic Acid (% total Calories)	%	Minimum	1.3

### Amino acids

(% of total diet)

Minimum

Arginine	.85
Lysine	.85
Methionine	0.28
Cystine	0.24
Tryptophan	0.28
Glycine	0.85
Histidine	0.30
Leucine	1.15
Isoleucine	0.75
Phenylalanine	0.68
Threonine	0.58
Valine	0.75

### Minerals

Calcium	%	.98
Phosphorous	%	0.54
Potassium	%	0.65
Sodium	%	0.20
Magnesium	%	0.15
Iron	PPM	155.00
Zinc	PPM	50.0
Manganese	PPM	40.0
Copper	PPM	10.0
Cobalt	PPM	0.5
Iodine	PPM	2.0

Vitamins

Vitamin A	IU/g	10.0
Vitamin D	IU/g	5.0
Alpha-tocopherol	PPM	60.0
Thiamin	PPM	25.0
Riboflavin	PPM	12.0
Niacin	PPM	98.0
Pantothenic Acid	PPM	68.0
Choline	PPM	1050.0
Pyridoxine	PPM	9.0
Folic acid	PPM	20.0
Biotin	PPM	0.4
Vitamin B <sub>12</sub>	Mcg/kg	50.0
Vitamin K	PPM	3.0
Vitamin C	PPM	800.0

\* TRUE VITAMIN A ACTIVITY BY HPLC METHOD