

NIH Specification for Open Formula Guinea Pig Diet (NIH-34M)

NSN 8710-00-900-1230

INGREDIENTS

Ingredients	Percentage by Weight
Alfalfa Meal (17% protein)	35.00
Soybean Meal (49% protein)	12.00
Ground whole oats	25.25
Ground whole wheat	23.60
Soybean oil	1.50
Dicalcium phosphate	0.50
Calcium carbonate	1.00
Salt	0.75
Premixes	0.40
Total	100.00

Ingredients shall be ground to pass through a U.S. Standard Screen No. 16 prior to mixing

VITAMIN FORTIFICATION PER TON (2,000 LBS.) OF FINISHED PRODUCT

Vitamin	Amount	Source
A	6,000,000 IU	Stabilized Vitamin A Palmitate or acetate
D ₃	2,000,000 IU	DActivated animal sterol
K	4.5 g	Menadione activity
dl Alpha-tocopheryl acetate	20.0 g	
Biotin	0.2 g	
Choline	480.0 g	Choline chloride
Folic Acid	4.4 g	
Niacin	10.0 g	
Pantothenic Acid	10.0 g	d Calcium pantothenate
Pyridoxine	4.5 g	Pyridoxine hydrochloride
Riboflavin supplement	3.0 g	
Thiamin	4.0 g	Thiamin mono-nitrate
B ₁₂ supplement	10,000 mcg.	
Vitamin C	900 g ¹	Coated ascorbic acid
Methionine-hydroxyanalogue	454 g	

¹ Contractors are authorized to adjust this value so that vitamin C concentration in the diet conforms to the Nutrient Standards of this Specification after the manufacturing process is complete

MINERAL FORTIFICATION PER TON (2,000 LBS.) OF FINISHED PRODUCT

Mineral	Amount	Source
Cobalt	1.4 g.	Cobalt carbonate
Copper	6 g.	Copper sulfate
Manganese	36 g.	Manganese oxide
Zinc	18 g.	Zinc oxide
Iodine	1 g.	Calcium iodate

These concentrations of vitamins and minerals shall be added to the ration via two separate (vitamin and mineral) premixes. For the 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 - At the time of manufacturing the total calculated concentration of nutrients in the ration from natural ingredients and from the fortifications shall be as follows:

Component	Measurement	Requirement	Amount
Crude protein	%	Minimum	17.0
Crude fat	%	Minimum	3.4
Crude fiber	%	Maximum	13.5
Ash	%	Maximum	8.5

Amino Acids (% of total diet)	Minimum
Arginine	.90
Lysine	.80
Methionine	.25
Cystine	.25
Tryptophan	.25
Glycine	.90
Histidine	.30
Leucine	1.30
Isoleucine	.90
Phenylalanine	.85
Tyrosine	.55
Threonine	.60
Valine	.90

Minerals	Measurement	Requirement	Amount
Calcium	%	Minimum	.90
Phosphorous	%	Minimum	.40
Potassium	%	Minimum	1.15
Sodium	%	Minimum	.40

Minerals	Measurement	Requirement	Amount
Magnesium	%	Minimum	.15
Iron	PPM	Minimum	220.00
Manganese	PPM	Minimum	70.00
Zinc	PPM	Minimum	32.00
Copper	PPM	Minimum	15.00
Cobalt	PPM	Minimum	1.00
Iodine	PPM	Minimum	1.00

Vitamins	Measurement	Requirement	Amount
Vitamin A	IU/g	Minimum	15.0 (6.0) ²
Vitamin D	IU/g	Minimum	2.0
Alpha-tocopherol	PPM	Minimum	70.0
Thiamin	PPM	Minimum	6.0
Riboflavin	PPM	Minimum	6.0
Niacin	PPM	Minimum	40.0
Pantothenic Acid	PPM	Minimum	25.0
Choline	PPM	Minimum	1800.0
Pyridoxine	PPM	Minimum	6.0
Folic	PPM	Minimum	6.0
Biotin	PPM	Minimum	0.4
Vitamin C	PPM	Minimum	840.0
Vitamin B ₁₂	mcg/kg	Minimum	10.0
Vitamin K	PPM	Minimum	4.0

² True Vitamin A activity by HPLC Method