



Diet NOD2

Controlled High Gluten Rat and Mouse

A fixed formulation diet for Laboratory Rats and Mice fortified with vitamins and minerals to meet the requirements of breeding animals after the diet is autoclaved or irradiated.

- All nutritional parameters of this diet meet or exceed the NRC guidelines for Rats and Mice.
- The diet has been designed specifically for NOD mice, keeping gluten content consistently high.
- The only grains included in the ration are maize and lupins. All gluten comes from a semi-refined wheat gluten
- The formulation is designed to be fed ad-lib to rodents of all ages.
- Mammalian and fish meals have been excluded from the diet.
- Total protein content has been increased to 23% as compared to the standard ration of around 19 - 20%. For mature animals it may be necessary to reduce the total protein specification. This could only be done by reducing the gluten content.
- There is a small increase in the energy density of the diet as compared to the standard ration (14.8 MJ/Kg vs 14.4 MJ/Kg in the standard diet). Again it may be necessary to reduce this for mature animals. This could only be done by reducing gluten content.
- The feed is manufactured in a cylindrical form with a diameter of around 12 mm, length is variable from 10 mm to 30 mm. We have found that this form is ideal for overhead hopper feeding, maximising the ease of handling whilst minimising fines formation and the risk of bridging in the feed hopper. Pellet strength has been kept lower than conventional pelletised diets. While this leads to a slight increase in transit and storage damage to the diet (fines generation), we have found that juvenile mice often have a lower feed intake on harder pellets.
- The diet can be packed in permeable bags suitable for direct loading into an autoclave or packaged for gamma sterilisation. If autoclaving, it is recommended that the diet be autoclaved at 120° C for 20 minutes with a post autoclaving vacuum drying cycle. Some clumping of the diet can be expected, but the diet clumps can usually be easily broken. Modifying the drying time to leave some residual moisture in the diet can minimise the clumping. Do not autoclave at 135° C as this will result in significant clumping that will be difficult to break.

Calculated Nutritional Parameters		Ingredients
Protein	23.00%	A Fixed formula ration using the following ingredients: Wheat gluten, Lupins, Maize, Mixed vegetable oils, Canola oil, Lysine, Sodium chloride, Potassium chloride, Calcium carbonate, Dicalcium phosphate, Magnesium oxide and a Vitamin and trace mineral premix.
Total Fat	5.00%	
Crude Fibre	4.60%	
Digestible Energy	14.5 MJ / Kg	

Diet Form and Features	
<ul style="list-style-type: none"> • Cereal grain base diet. 12 mm diameter pellets. • Pack size 10 and 20 Kg Bags. 5kg bags for irradiation, vacuum sealed and packed in cartons for protection during transit. • Diet suitable for irradiation, also suitable for autoclave. • Lead time 2 weeks for non irradiated diet or 4 weeks for irradiated diet. 	

Added Vitamins	
Vitamin A (Retinol)	10 000 IU/Kg
Vitamin D (Cholecalciferol)	2 000 IU/Kg
Vitamin E (a Tocopherol acetate)	100 mg/Kg
Vitamin K (Menadione)	20 mg/Kg
Vitamin B1 (Thiamine)	80 mg/Kg
Vitamin B2 (Riboflavin)	30 mg/Kg
Niacin (Nicotinic acid)	100 mg/Kg
Vitamin B6 (Pryridoxine)	25 mg/Kg
Calcium Pantothenate	50 mg/Kg
Biotin	300 ug/Kg
Folic Acid	5.0 mg/Kg
Vitamin B12 (Cyanocobalamin)	150 ug/Kg

Calculated Amino Acids	
Valine	0.84%
Leucine	2.00%
Isoleucine	0.90%
Threonine	0.80%
Methionine	0.40%
Cystine	0.30%
Lysine	0.90%
Phenylalanine	1.50%
Tyrosine	0.70%
Tryptophan	0.30%
Histidine	0.63%

Feeding Recommendations
<ul style="list-style-type: none"> • Feed <i>ad lib.</i> to animals of all ages

Added Trace Minerals	
Magnesium	110 mg/Kg
Iron	70 mg/Kg
Copper	16 mg/Kg
Iodine	0.5 mg/Kg
Manganese	70 mg/Kg
Zinc	60 mg/Kg
Molybdenum	0.5 mg/Kg
Selenium	0.1 mg/Kg

Calculated Total Minerals	
Calcium	0.90%
Phosphorous	0.70%
Magnesium	0.30%
Sodium	0.20%
Chloride	1.00%
Potassium	0.90%
Sulphur	0.10%
Iron	168 mg/Kg
Copper	23 mg/Kg
Iodine	0.5 mg/Kg
Manganese	86 mg/Kg
Cobalt	0.02 mg/Kg
Zinc	82 mg/Kg
Molybdenum	1.3 mg/Kg
Selenium	0.17 mg/Kg
Cadmium	0.01 mg/Kg
Chromium	No data
Boron	2.8 mg/Kg

Calculated Total Vitamins		Calculated Fatty Acid Composition	
Vitamin A (Retinol)	15 100 IU/Kg	Myristic Acid 14:0	Trace
Vitamin D (Cholecalciferol)	2 000 IU/Kg	Palmitic Acid 16:0	0.50%
Vitamin E (a Tocopherol acetate)	100 mg/Kg	Stearic Acid 18:0	0.15%
Vitamin K (Menadione)	20 mg/Kg	Palmitoleic Acid 16:1	0.01%
Vitamin C (Ascorbic acid)	No data	Oleic Acid 18:1	1.90%
Vitamin B1 (Thiamine)	82 mg/Kg	Gadoleic Acid 20:1	0.02%
Vitamin B2 (Riboflavin)	31 mg/Kg	Linoleic Acid 18:2 n6	1.90%
Niacin (Nicotinic acid)	114 mg/Kg	a Linolenic Acid 18:3 n3	0.20%
Vitamin B6 (Pryridoxine)	29 mg/Kg	Arachadonic Acid 20:4 n6	No data
Pantothenic Acid	53 mg/Kg	EPA 20:5 n3	Trace
Biotin	336 ug/Kg	DHA 22:6 n3	No data
Folic Acid	5.1 mg/Kg	Total n3	0.22%
Inositol	No data	Total n6	1.90%
Vitamin B12 (Cyancobalamin)	150 ug/Kg	Total Mono Unsaturated Fats	1.94%
Choline	1 000 mg/Kg	Total Polyunsaturated Fats	2.12%
		Total Saturated Fats	0.69%

Calculated data uses information from typical raw material composition. It could be expected that individual batches of diet will vary from this figure. **Diet post treatment by irradiation or auto clave could change these parameters.**

We are happy to provide full calculated nutritional information for all of our products, however we would like to emphasise that these diets have been specifically designed for manufacture by Specialty Feeds.