



Diet

SF00-213

High Zinc Semi-Pure Rodent Diet

A semi-pure diet formulation for laboratory rats and mice based on AIN-93G.

- Zinc content has been increased to 1 000 mg / Kg by the addition of Zinc Sulphate to the trace mineral premix.
- Zinc toxicity in rats or mice has not been clearly defined. Studies have indicated that under certain circumstances dietary zinc concentration in excess of 250 mg Zn / Kg diet leads to symptoms of toxicity. A more generally recognised toxic concentration is 5 000 mg Zn / Kg diet. The LD50 for Zinc Sulphate is reported as 1 700 – 2 000 mg ZnSO₄ / Kg, this equates to a zinc concentration of 650 mg Zn / Kg diet.
- This diet was designed for a very short term feeding trial in SD rats

Calculated Nutritional Parameters

Protein	19.50%
Total Fat	7.00%
Crude Fibre	4.70%
AD Fibre	4.70%
Digestible Energy	16.1 MJ / Kg
% Total calculated digestible energy from lipids	16.0%
% Total calculated digestible energy from protein	21.0%

Diet Form and Features

- Semi pure diet. 12 mm diameter pellets.
- Pack size 5 Kg, vacuum packed in oxygen impermeable plastic bags, under nitrogen. Bags are packed into cardboard cartons to protect them during transit. Smaller pack quantity on request.
- Diet suitable for irradiation but not suitable for autoclave.
- Lead time 2 weeks for non-irradiation or 4 weeks for irradiation.

Ingredients

Casein (Acid)	200 g/Kg
Sucrose	100 g/Kg
Canola Oil	70 g/Kg
Cellulose	50 g/Kg
Wheat Starch	404 g/Kg
Dextrinised Starch	132 g/Kg
DL Methionine	3.0 g/Kg
Calcium Carbonate	13.1 g/Kg
Sodium Chloride	2.6 g/Kg
Modified AIN93 Trace Minerals (No Added Zinc)	1.4 g/Kg
Potassium Citrate	2.5 g/Kg
Potassium Dihydrogen Phosphate	6.9 g/Kg
Potassium Sulphate	1.6 g/Kg
Choline Chloride (75%)	2.5 g/Kg
AIN93 Vitamins	10 g/Kg
Zinc Sulphate (Monohydrate)	2.8 g/KG

Calculated Amino Acids	
Valine	1.10%
Leucine	1.70%
Isoleucine	1.00%
Threonine	0.70%
Methionine	0.70%
Cystine	0.05%
Lysine	1.50%
Phenylalanine	0.90%
Tyrosine	1.00%
Tryptophan	0.30%

Calculated Total Minerals	
Calcium	0.47%
Phosphorous	0.35%
Magnesium	0.09%
Sodium	0.15%
Chloride	0.16%
Potassium	0.40%
Sulphur	0.23%
Iron	75 mg/Kg
Copper	7.0 mg/Kg
Iodine	0.2 mg/Kg
Manganese	19 mg/Kg
Cobalt	No data
Zinc	1 000 mg/Kg
Molybdenum	0.15 mg/Kg
Selenium	0.3 mg/Kg
Cadmium	No data
Chromium	1.0 mg/Kg
Fluoride	1.0 mg/Kg
Lithium	0.1 mg/Kg
Boron	3.3 mg/Kg
Nickel	0.5 mg/Kg
Vanadium	0.1 mg/Kg

Calculated Total Vitamins	
Vitamin A (Retinol)	4 000 IU/Kg
Vitamin D (Cholecalciferol)	1 000 IU/Kg
Vitamin E (a Tocopherol acetate)	75 mg/Kg
Vitamin K (Menadione)	1 mg/Kg
Vitamin C (Ascorbic acid)	None added
Vitamin B1 (Thiamine)	6.1 mg/Kg
Vitamin B2 (Riboflavin)	6.3 mg/Kg
Niacin (Nicotinic acid)	30 mg/Kg
Vitamin B6 (Pryridoxine)	7 mg/Kg
Pantothenic Acid	16.5 mg/Kg
Biotin	200 ug/Kg
Folic Acid	2 mg/Kg
Inositol	None added
Vitamin B12 (Cyanocobalamin)	103 ug/Kg
Choline	1670 mg/Kg

Calculated Fatty Acid Composition	
Myristic Acid 14:0	No data
Palmitic Acid 16:0	0.40%
Stearic Acid 18:0	0.10%
Palmitoleic Acid 16:1	No data
Oleic Acid 18:1	4.20%
Gadoleic Acid 20:1	0.10%
Linoleic Acid 18:2 n6	1.51%
a Linolenic Acid 18:3 n3	0.98%
Arachadonic Acid 20:4 n6	No data
EPA 20:5 n3	Trace
DHA 22:6 n3	No data
Total n3	0.98%
Total n6	1.51%
Total Mono Unsaturated Fats	3.98%
Total Polyunsaturated Fats	2.50%
Total Saturated Fats	0.50%

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.