



## Diet SF01-017

## Low Iron, Semi-Pure Rodent Diet

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

- Iron content has been decreased to <10 mg Fe / Kg diet by exclusion of any added Fe to the trace mineral premix.
- In addition higher purity minerals have been used to minimise trace level contamination of iron in this raw material.
- The careful selection of raw materials has allowed us to reduce dietary iron in this diet from what was previously achieved. Recent analysis of this diet (in powder form) has shown that the average Fe level in this diet is 2.5mg/Kg
- The generally recognised minimum iron requirement in rats and mice is 35 mg Fe / Kg diet for maintenance and growth and 75 mg Fe / kg diet during pregnancy and lactation. Diets showing clear symptoms of iron deficiency are generally in the range of 2 - 10 mg Fe / Kg diet.
- Whilst this diet has an iron concentration less than known requirements, it was not designed as a diet leading to rapid symptoms of iron deficiency.
- The pelletised diet has an increased iron content than the powder form. Typically in the range of 15 - 20 mg Fe / Kg.

### Calculated Nutritional Parameters

Protein	19.40%
Total Fat	7.00%
Crude Fibre	4.70%
AD Fibre	4.70%
Digestible Energy	16.3 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. Powder or 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		Calculated Total Minerals as Fed	
Casein (Acid)	200 g/Kg	Calcium	0.47%
Sucrose	100 g/Kg	Phosphorous	0.32%
Canola Oil	70 g/Kg	Magnesium	0.10%
Cellulose	50 g/Kg	Sodium	0.14%
Wheat Starch	406 g/Kg	Chloride	0.16%
Dextrinised Starch	132 g/Kg	Potassium	0.40%
DL Methionine	3.0 g/Kg	Sulphur	0.23%
LR Calcium Carbonate	11 g/Kg	Iron	<5 mg/Kg
Sodium Chloride	2.6 g/Kg	Copper	6.6 mg/Kg
AIN93 Trace Minerals Excluding Iron	1.4 g/Kg	Iodine	0.22 mg/Kg
LR Potassium Citrate	2.5 g/Kg	Manganese	20 mg/Kg
LR Potassium Dihydrogen Phosphate	6.9 g/Kg	Cobalt	No data
LR Potassium Sulphate	1.6 g/Kg	Zinc	36 mg/Kg
LR Magnesium Oxide	0.3 g/Kg	Molybdenum	0.15 mg/Kg
Choline Chloride (75%)	2.5 g/Kg	Selenium	0.3 mg/Kg
AIN93 Vitamins	10 g/Kg	Cadmium	No data
		Chromium	1.0 mg/Kg
		Fluoride	1.0 mg/Kg
		Lithium	0.1 mg/Kg
		Boron	3.0 mg/Kg
		Nickel	0.55 mg/Kg
		Vanadium	0.1 mg/Kg

Calculated Amino Acids as Fed	
Valine	1.30%
Leucine	1.80%
Isoleucine	0.90%
Threonine	0.80%
Methionine	0.80%
Cysteine	0.05%
Lysine	1.50%
Phenylalanine	1.00%
Tyrosine	1.00%
Tryptophan	0.30%
Histidine	0.60%



Calculated Total Vitamins as Fed	
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 (Cyancobalamin)	103 ug/Kg
Choline	1670 mg/K

Calculated Fatty Acid Composition as Fed	
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	1.30%
a Linolenic Acid 18:3 n3	0.70%
Arachadonic Acid 20:4 n6	No data
EPA 20:5 n3	Trace
DHA 22:6 n3	No data
Total n3	0.78%
Total n6	1.33%
Total Mono Unsaturated Fats	4.30%
Total Polyunsaturated fats	2.11%
Total Saturated fats	0.49%

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.

