

## Sunflower Meal

### Ingredient Declaration

Sunflower Meal – derived from sunflower seeds which conform to the requirements of Australian Oilseeds Federation Sunflower Standard Reference CSO3 or CSO4.

### Product Description

Solvent extracted Sunflower Meal is obtained from the solvent extraction and grinding of non dehulled sunflower seed (*Helianthus annuus*). The minimum quality standards shall conform to the Australian Oilseed Federation Standards (SUN:M:382/93). Sunflower Meal will conform to FSANZ Food Standards Code and the relevant State Health Acts.

### Characteristics

A black-grey mottled meal, free flowing with a clean, fresh chaff like odour. Typical bulk density of 430-470g/l. Fineness of Grind – Max 2% retained, 3mm screen (woven wire DIN3) and max 10% retained, 2mm screen (woven wire, US10, DIN2).

Standard Specifications (at time of manufacture)		
Analyses	Method	Specification
Crude Protein	AOCS Ba 4e-93	28.0% Min
Moisture	AOCS Ba 2a-38	12.0% Max
Crude Fibre	AOCS Ba 6-84	24.0% Max
Oil	AOCS Ba 3-38	0.5% Min
Typical amino acid profile	Unit	
Alanine	% of Cr. Protein	4.0
Arginine	% of Cr. Protein	7.9
Aspartic Acid	% of Cr. Protein	8.0
Cystine	% of Cr. Protein	1.4
Glutamic Acid	% of Cr. Protein	21.2
Glycine	% of Cr. Protein	5.8
Histidine	% of Cr. Protein	2.6
Leucine	% of Cr. Protein	6.5
Isoleucine	% of Cr. Protein	4.0
Lysine	% of Cr. Protein	3.5
Methionine	% of Cr. Protein	2.1
Phenylalanine	% of Cr. Protein	4.7
Proline	% of Cr. Protein	4.4
Serene	% of Cr. Protein	3.8
Threonine	% of Cr. Protein	3.7
Tryptophan	% of Cr. Protein	1.2
Tyrosine	% of Cr. Protein	2.7
Valine	% of Cr. Protein	4.7

Typical Analysis – as fed basis	
Metabolisable Energy-Poultry	8.7 MJ/kg
Metabolisable Energy-Cattle	10.3 MJ/kg
Digestible Energy-Swine	8.4 MJ/kg
Crude Fibre	22.0%
Acid Detergent Fibre	29.5%
Neutral Detergent Fibre	41.1%
Total Ash	6.2%
Calcium	0.39%
Total Phosphorus	1.02%
Available Phosphorus	0.53%
Magnesium	0.54%
Potassium	1.65%
Sulphur	0.34%
DCAD	141 meq/kg

### Shipping and Storage Conditions

The product is to be shipped in a covered tipper truck, with adequate protection from rain. Trucks / railcars used for the transportation must conform with Section 1 : AOF 2-4, Code of Practice for the Bulk Transportation of Vegetable Oilseeds, Meals and Hulls by Road and Rail. The product should be stored in clean, dry environment with protection from moisture, insects, birds and rodents.

### Packaging & Coding

Each load should be accompanied by a delivery note detailing product name, net weight, customer details, manufacturer's name and address. Product details will be included on a Certificate of Analysis or Conformance/Compliance when requested in the sales contract. A labeled retention sample shall be maintained for no less than two months.