

# DL Methionine, L Lysine and L Threonine

## AMINO ACIDS FOR FEED

**Amino Acid** are essential ingredients for animal feeds, essentially poultry feeds (Broiler Feed and Layer Feed).



The nutritional composition of the poultry feed is very critical as it directly affects the performance of the Broilers and Layers. Minor discrepancy in macro or micro-nutrient composition and its digestibility will drastically affect the birds in the farms. Therefore, the major endeavour of animal nutrition experts is to consistently balance the nutrition in the feed while keeping control of the cost. This can be achieved through various strategies like use of Enzymes and Amino Acids such as DL Methionine, L Lysine and L Threonine in Poultry Feeds.

### SPECIFICATIONS

| DL Methionine (CAS 59-51-8) |                                      |
|-----------------------------|--------------------------------------|
| Appearance                  | White to slightly yellowish crystals |
| Assay                       | > 99.0%                              |
| Loss of Drying              | < 1.0%                               |
| Ash Content                 | < 0.3%                               |
| Bulk Density                | 600 to 700 g/l                       |
| Solubility                  | 3.3 g in 100 ml water at 20°C        |
| Nitrogen Content            | 9.4%                                 |
| Melting Range               | 266 – 267°C (decomp)                 |

| L Lysine (CAS 657-27-2) |                               |
|-------------------------|-------------------------------|
| Appearance              | Light yellow powder           |
| Assay                   | > 98.5%                       |
| Loss of Drying          | < 0.3%                        |
| Ash Content             | < 0.5%                        |
| Bulk Density            | 550 to 650 g/l                |
| Solubility              | 9.1 g in 100 ml water at 20°C |
| Nitrogen Content        | 15.1%                         |
| Melting Range           | 215 – 224°C (decomp)          |

| L Threonine (CAS 72-19-5) |                               |
|---------------------------|-------------------------------|
| Appearance                | White crystal powder          |
| Assay                     | > 99.0%                       |
| Loss of Drying            | -                             |
| Ash Content               | -                             |
| Bulk Density              | 370 g/l                       |
| Solubility                | 9.0 g in 100 ml water at 20°C |
| Nitrogen Content          | -                             |
| Melting Range             | 255- 257°C (decomp)           |

Storage Stability: 1 to 2 years when stored under cool and dry conditions

### APPLICATIONS & BENEFITS

Poultry feed is based on bulk ingredients such as Maize, Soy, Groundnut Cake, Fish or Meat Meal, blended fats, and semi bulk ingredients such as Calcite, Calcium Phosphate, Sodium Bicarbonate. Equally vital are the micro-nutrient, which have very specific and important functions:

- Nutrition: vitamin premixes, minerals traces, growth promoters...
- Feed Stability: toxin binders, antioxidants, acidifiers...
- Disease Management: antibiotics, enzymes, pro-biotics...

The growth and nutrition Balancing is obtained by the use of **Amino Acids (DL Methionine, L Lysine, L Threonine)**.