



## AJINOMOTO HEARTLAND, INC.

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# TECHNICAL DATA SHEET

## L-Threonine [Feed Grade, 98.5%]

### Commercial Guarantee:

L-Threonine content 98.5% minimum

The information contained herein is correct to the best of our knowledge. The recommendations or suggestions made in this document are made without guarantee or representation as to result.

### PHYSICAL DATA:

Chemical formula	C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>
Molecular weight <sub>1</sub>	119.12
Appearance	White to off-white granule
Purity	98.0% (on an as is basis); 98.5% (on a dry matter basis)
Dry matter	99.5% (Minimum)
Bulk Density	0.6 to 0.7 grams/cm <sup>3</sup> (37.4 to 43.7 lbs/ft <sup>3</sup> )
Total nitrogen <sub>1</sub>	11.52% (on an as is basis)
Crude protein (%/16 g-N <sub>1</sub> )	72.03% (on an as is basis)
Calculated energy <sup>‡</sup>	
Swine, DE	4,140 (kcal/kg) 1,880 (kcal/lb)
Swine, ME	3,790 (kcal/kg) 1,720 (kcal/lb)
Swine, NE	2,950 (kcal/kg) 1,340 (kcal/lb)
Poultry, ME	3,570 (kcal/kg) 1,620 (kcal/lb)

### STABILITY:

Shelf life (unopened packaging) 3 years (25 kg Bags); 1 year (1,000 kg Totes)  
Pelleting stability Stable under commercial pelleting conditions

### PACKAGING SPECIFICATIONS:

#### Threonine 25 kg bags:

Pallet size – 1.02 m x 1.22 m (40" x 48")  
Stack pattern - 5 bags/layer; 8 bags high; Pallet weight – 1,000 kg (2,205 lbs)  
Pallet dimensions (stacked) – Width 1.14 m x Depth 1.35 m x Height 1.12 m (45" x 53" x 44")

#### Threonine 1,000 kg tote:

Pallet size – 1.02 m x 1.22 m (40" x 48")  
Tote dimensions – 0.91 m x 0.91 m x 1.68 m (36" x 36" x 66"); Loop size – 25 cm (10") Standard lift loops on all four (4) corners; Spout dimensions – 25 cm (10") diameter, 41 cm (16") length

<sup>1</sup> The Merck Index, 14th Edition (2006), L- Threonine (9380; Pg. 1611)

<sup>‡</sup> These values are for informational purposes only and do not constitute any commercial guarantee

**For animal feed only – not for human consumption**