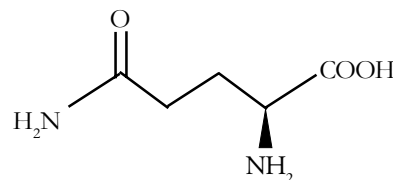


## L-Glutamine

L-glutamine is an essential amino acid required by virtually all mammalian and insect cells grown in culture. Once deaminated by the cells, it is used as an energy source, incorporated into protein, and used in nucleic acid metabolism.

Not as stable as other amino acids in culture, L-glutamine is extremely sensitive to storage temperatures, pH, and even age. While L-glutamine undergoes spontaneous degradation even when stored properly, this degradation radically increases in warmer temperatures, resulting in the formation of potentially harmful ammonia. Adding more L-glutamine than needed to culture media can also lead to the build-up of ammonia, as it is broken down faster than it is metabolized by the cells.

References:**Molecular Weight & Formula:**146.15, C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>**Molecular Structure:****Appearance:**

Liquid: Clear, colorless solution

Powder: White, crystalline powder

**Working Concentration:**

Concentration will vary based on media type; refer to L-Glutamine Addition Chart for more information

**Storage & Stability:**

Liquid: 12 months when stored frozen (-20C); avoid repeated freeze-thaw cycles

Powder: Refrigerated (2-8C); shelf-life is lot specific

**Shipping:**

Liquid: Frozen

Powder: Ambient

**Specifications: *Liquid***

pH	5.0 - 6.0
Osmolality	400-500 mOsm/kg H <sub>2</sub> O
Endotoxin	≤ 0.25 EU/mL @ 1:50
Mycoplasma	Tested Negative
Sterility by USP	Pass

**L-Glutamine**

200 mM Solution in 0.85% NaCl  
(29.23 mg/mL)

25-005-CI  
25-005-CV

6 x 100 mL  
6 x 500 mL

**L-Glutamine**

Powder, MW 146.15

61-030-RM  
61-030-RO  
61-030-RR

1 x 100 g  
1 x 500 g  
1 x 1 kg