

# L-Glutamine (From non-animal source)

Meets USP 41-NF 36 and JP 17 testing specifications

**Product Code: TC243M**

Molecular weight: 146.14

Molecular formula:  $C_5H_{10}N_2O_3$

CAS No.: 56-85-9

## Quality Control

### Appearance (USP, JP)

White crystals or crystalline powder.

### Solubility (USP)

Soluble in water; practically insoluble in alcohol and in ether.

### Solubility (JP)

It is freely soluble in formic acid, soluble in water and practically insoluble in ethanol (99.5%)

### pH (2 % in water at 25°C) (JP)

4.50 - 6.00

### Identification : FTIR (JP)

Matches with the standard pattern

### Identification A : FTIR (USP)

Matches with the standard pattern

### Colour & clarity of solution (JP)

2.5% solution in water is clear and colourless

### Chloride (USP)

$\leq 0.05\%$

### Chloride (JP)

$\leq 0.021\%$

### Iron (USP)

$\leq 0.003\%$

### Iron (JP)

$\leq 0.001\%$

### Heavy metals (USP)

$\leq 0.0015\%$

### Heavy metals (JP)

$\leq 0.001\%$

### Ammonium (JP)

$\leq 0.1\%$

### Sulphate (USP)

$\leq 0.03\%$

### Sulphate (JP)

$\leq 0.028\%$

### Related compounds : TLC (USP)

No secondary spot of the sample solution is larger or more intense than the principal spot of the standard solution ( $\leq 0.5\%$ )

### Related substance : TLC (JP)

The spot other than the principal spot obtained with the sample solution is not more intense than the spot obtained with the standard solution

### Specific rotation (USP, JP)

$+6.3^\circ$  to  $+7.3^\circ$  ( $c = 4\%$  in water at  $20^\circ\text{C}$ , to dissolve warm at  $40^\circ\text{C}$ , dried substance)

### Loss on drying (USP, JP)

$\leq 0.3\%$  (at  $105^\circ\text{C}$ , 3 hr)

### Residue on ignition (USP)

$\leq 0.3\%$

### Residue on ignition (JP)

$\leq 0.1\%$

### Assay (NT, dried basis) (USP)

98.50 - 101.50%

### Assay (NT, dried substance) (JP)

99.00 - 101.00%

### Storage and Shelf Life:

Store below  $30^\circ\text{C}$  away from bright light

Shelf life is 36 months.

Use before expiry date given on the product label.

Revision : 03/2022

### Disclaimer :

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