



**Specification for L-Threonine, USP, JP, bioCERTIFIED(TM)
(T9400)**

| | |
|-------------------|---|
| Item Number | T9400 |
| Item | L-Threonine, USP, JP, bioCERTIFIED(TM) |
| CAS Number | 72-19-5 |
| Molecular Formula | C ₄ H ₉ NO ₃ |
| Molecular Weight | 119.12 |
| MDL Number | |
| Synonyms | |

| Test | Specification | |
|---|------------------|-----------|
| | Min | Max |
| ASSAY (DRIED BASIS) | 98 | 101.5 % |
| pH | 5.2 | 6.2 |
| SPECIFIC ROTATION (DRIED BASIS, JP), [α] _D 20 | -26.0° to -29.0° | |
| SPECIFIC ROTATION (DRIED BASIS, USP), [α] _D 25 | -26.7° to -29.1° | |
| APPEARANCE OF SOLUTION | Clear, colorless | |
| LOSS ON DRYING | | 0.20 % |
| RESIDUE ON IGNITION (SULFATED ASH) | | 0.10 % |
| RELATED SUBSTANCES (JP-TLC METHOD) | Conforms | |
| RELATED COMPOUNDS (USP-TLC METHOD): | | |
| ANY UNSPECIFIED IMPURITY | | 0.5 % |
| TOTAL IMPURITIES | | 2.0 % |
| AMMONIUM | | 0.02 % |
| CHLORIDE (Cl) | | 0.021 % |
| SULFATE (SO ₄) | | 0.028 % |
| IRON (Fe) | | 30 ppm |
| HEAVY METALS (Pb) | | 20 ppm |
| ARSENIC (As ₂ O ₃) | | 2 ppm |
| ELEMENTAL IMPURITIES | AS REPORTED | |
| TOTAL MICROBIAL COUNT | | 100 CFU/g |
| MOLD | | 10 CFU/g |
| BACTERIAL ENDOTOXINS | | 6.0 EU/g |
| IDENTIFICATION | TO PASS TEST | |
| EXPIRATION DATE | | |
| DATE OF MANUFACTURE | | |

| Test | Specification | |
|-------------------|---------------|-----|
| | Min | Max |
| APPEARANCE | | |
| RESIDUAL SOLVENTS | TO PASS TEST | |

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