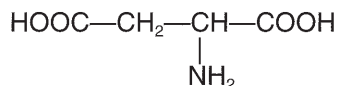


# L-ASPARTIC ACID

CAS NO. 56-84-8

Specification meets or exceeds the current JP USP EP and FCC.

## MOLECULAR STRUCTURE AND FORMULA



$\text{C}_4\text{H}_7\text{NO}_4$  : 133.10  
N : 10.52%

## DESCRIPTION

White crystals or crystalline powder  
Odorless  
Slightly acid taste

## IDENTIFICATION

Compare the infrared absorption spectrum of sample with that of the standard by ATR method.

## SPECIFICATION AND PROCEDURE

State of solution (Transmittance)	Not Less Than 98.0%	Sec.-1 5%, 1 mol/l HCl
pH	2.5 ~ 3.5	Sec.-26, Saturated solution
Specific rotation $[\alpha]_D^{20}$	+24.5 ~ +25.5°	Sec.-2, dry 8%, 6 mol/l HCl
Ammonium ( $\text{NH}_4$ )	Not More Than 0.020%	Sec.-43, 0.20 g 0.1 mol/l HCl
Chloride (Cl)	Not More Than 0.020%	Sec.-4-(1), 0.5 g 0.24 ml of 0.01 mol/l HCl
Sulfate ( $\text{SO}_4$ )	Not More Than 0.020%	Sec.-5, 0.6 g + 5 ml dil. HCl + $\text{H}_2\text{O}$ → 45 ml 0.25 ml of 0.005 mol/l $\text{H}_2\text{SO}_4$ + $\text{H}_2\text{O}$ → 45 ml (5 ml of $\text{BaCl}_2$ )
Iron (Fe)	Not More Than 10 ppm	Sec.-33
Heavy metals (Pb)	Not More Than 10 ppm	Sec.-7-(4), 1.0 g 1.0 ml of Standard solution
Lead (Pb)**	Not More Than 5 ppm	Sec.-7-(4), 1.0 g 0.5 ml of Standard solution
Arsenic ( $\text{As}_2\text{O}_3$ )	Not More Than 1 ppm	Sec.-8-(2), 2.0 g 2.0 ml of Standard solution
Loss on drying	Not More Than 0.20%	Sec.-9-(1) 105°C, 3hr
Residue on ignition	Not More Than 0.10%	Sec.-10, 1 g
Related substances	Not More Than 0.4%	Sec.-43, 0.20 g 0.1 mol/l HCl
Endotoxin*	Less Than 6.0 EU/g	Sec.-34-(2), 0.25 g/100 ml
Assay (dry basis)	99.0 ~ 101.0%	Sec.-16-(1), dry → 0.15 g 0.1 mol/l NaOH 1ml = 13.31 mg $\text{C}_4\text{H}_7\text{NO}_4$

\* The endotoxin-certified grade will be supplied on request.

\*\* This test is done for FCC grade.

## STORAGE

Controlled room temperature in tight container

This product meets requirements of residual solvents listed in the current JP, USP and EP.