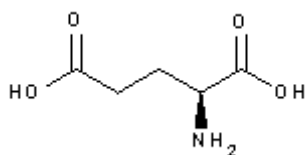


**PRODUCT CODE: 142042****L-Glutamic Acid (BP, Ph. Eur.) pure, pharma grade**

---

 $C_5H_9NO_4$  $C_5H_9NO_4$ 

M.= 147,13

CAS [56-86-0]

EINECS 200-293-7

TARIC 2922 42 00 90

**SYNONYMS:** (S)-(+)-2-Aminoglutaric Acid, (S)-(+)-Glutamic Acid**PHYSICAL DATA:** crystalline powder, White, Soluble in water 86 g/l at 20 °C M.P.: 205 °C • pH3,0 - 3,5 •**BIBLIOGRAPHY:** Merck Index **13**, 4.482 Sax **GFO000** • Safety **2**, **1776 A** • Römp **8**, **1509** • Beilstein **4**, **488 IV**, **3028** • BRN 1723801 • BP.**2018** • Ph. Eur. **8.0** (2014) **9.0** (2017) • F.C.C **10 11** • Royal Decree **I1040** • BOE **243**(8-10-2009) • Regulation (EU) n° 231/2012 •**HAZARDOUS:** RTECS: LZ 9700000 •**OBSERVATIONS:** Storage away from direct light. •**SPECIFICATIONS:**

Assay calc. a.d.s.

98,5-100,5 %

Identity :

Identity according to Pharmacopoeias:

passes test

T.L.C.

passes test

Specific rotation  $[\alpha]_{20/D}$  c=10 (in HCl 1 mol/l)

+30,5 - +32,5°

**Maximum limit of impurities**

Appearance of solution	passes test
Insoluble matter in HCl 1 mol/l	passes test
Loss on drying at 105°C	0,5%
Residue on ignition (as SO <sub>4</sub> )	0,1 %
Chloride (Cl)	0,01%
Ammonium (NH <sub>4</sub> )	0,02%
Sulfate (SO <sub>4</sub> )	0,02%
Residual solvents (Ph.Eur.)	passes test
Heavy metals (as Pb)	0,001%
Fe	0,001 %
Elemental impurities (ICH Q3D):	
Class 1	
Cd	0,5 ppm
Pb	0,5 ppm
As	1,5 ppm
Hg	1,5 ppm
Class 2A	
Co	5 ppm
V	10 ppm
Ni	20 ppm
Class 2B	
Tl	5 ppm
Au	10 ppm
Pd	10 ppm
Ir	10 ppm
Os	10 ppm
Rh	10 ppm
Ru	10 ppm
Se	15 ppm
Ag	15 ppm
Pt	10 ppm
Class 3	
Li	55 ppm
Sb	120 ppm
Ba	140 ppm
Mo	25 ppm
Cu	250 ppm
Sn	600 ppm
Cr	25 ppm