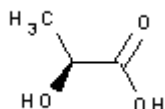


PRODUCT CODE: 141034

L(+)-Lactic Acid (BP, Ph. Eur.) pure, pharma grade

$C_3H_6O_3$



M.= 90,08

CAS [79-33-4]

EINECS 201-196-2

TARIC 2918 11 00 00

Purity ranges from 85% to 92% according to application .

SYNONYMS: (S)-2-Hydroxypropanoic Acid

PHYSICAL DATA: liquid, Clear, viscous, Colourless, Miscible with water • D 20/4 1,209 • M.P.: 18 °C • B.P.: 122 °C
 • pH2,8 • n₂₀/D : 1,4251 • Flash P.:110 °C •

BIBLIOGRAPHY: Merck Index **12**, 5.350 13, 5.352 Safety **2** , **2061 C** • Kühn-Birett **G 4** • Beilstein **3** , **268 IV** , **633** • BRN 1720251 • ACS **XI** • BP.**2021** • USP **43** • Ph. Eur. **9.0** (2017) 5.2 , 3227 **10.0** (2020) 5.2 , 3227 • F.C.C **12 13** • BOE **243**(8-10-2009) • Regulation (EU) n° 231/2012 •

HAZARDOUS: RTECS: OD 3100000 • LD50 oral rat 3.543 mg/kg • LD50 ipr mus 3.194 mg/kg



H: H314 •

P: P264 • P280 • P302+P352 • P305+P351+P338 • P321 • P501 • P332+P313 • P337+P313 • P362 •

WEIGHT/VOLUME INFORMATION: 1l-1,20 kg 1kg-0,83 l

SPECIFICATIONS:

| | |
|---|---|
| Minimum assay (as S-enantiomer) | 95,0 % del C ₃ H ₆ O ₃ |
| Assay (C ₃ H ₆ O ₃) | 88,0-92,0 % |
| Identity : | |
| Identity according to Pharmacopoeias: | passes test |

| | |
|---|-------------|
| Density at 20/20 | 1,20-1,21 |
| Maximum limit of impurities | |
| Appearance | passes test |
| Insoluble matter in Ether-insoluble substances | passes test |
| Insoluble matter in H ₂ O | passes test |
| Darkened substances by H ₂ SO ₄ | passes test |
| Residue on ignition (as SO ₄) | 0,05 % |
| Chloride (Cl) | 0,002% |
| Sulfate (SO ₄) | 0,002% |
| Residual solvents (Ph.Eur.) | passes test |
| Citric, oxalic and phosphoric acids | passes test |
| Volatile fatty acids | passes test |
| Sugars and other reducing substances | passes test |
| Ca | 0,02 % |

Elemental impurities (ICH Q3D):

| | |
|----------|---------|
| Class 1 | |
| Cd | 0,5 ppm |
| Pb | 0,5 ppm |
| As | 1 ppm |
| Hg | 1,5 ppm |
| Class 2A | |
| Co | 5 ppm |
| V | 10 ppm |
| Ni | 20 ppm |
| Class 2B | |
| Tl | 0,8 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 |