

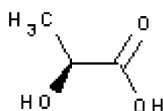


**PRODUCT CODE: 141034**

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

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C<sub>3</sub>H<sub>6</sub>O<sub>3</sub>



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 • n<sub>20</sub>/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.**2017** • USP **39** • Ph. Eur. **8.0** (2014) 5.2 , 3227 **9.0** (2017) 5.2 , 3227 • F.C.C **9 10** • 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: H319 • H315 •

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 <sub>3</sub> H <sub>6</sub> O <sub>3</sub>
Assay (C <sub>3</sub> H <sub>6</sub> O <sub>3</sub> )	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 <sub>2</sub> O	passes test
Darkened substances by H <sub>2</sub> SO <sub>4</sub>	passes test
Residue on ignition (as SO <sub>4</sub> )	0,05 %
Chloride (Cl)	0,002%
Sulfate (SO <sub>4</sub> )	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
Heavy metals (as Pb)	0,001%

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