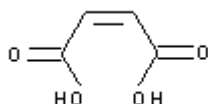




PRODUCT CODE: 141882

Maleic Acid (BP, Ph. Eur.) pure, pharma grade

$C_4H_4O_4$
HOOCCHCOOH



M.= 116,07

CAS [110-16-7]

EINECS 203-742-5

TARIC 2917 19 80 90

SYNONYMS: (Z)-Butenedioic Acid, cis-1,2-Ethylenedicarboxylic Acid, Toxilic Acid

PHYSICAL DATA: Small crystals, White, Soluble in water 788 g/l at 25 °C D 1,59 • M.P.: 139 °C • Flash P.:127 °C •

BIBLIOGRAPHY: Merck Index **12**, 5.743 13, 5.726 Sax **MAK609** • Safety **2** , **2183 A** • Ullmann **(5.)8** , 534 • Beilstein **2** , **748 I** , **303 II** , **641 III** ,**1911 IV** , **2199** • BRN 605762 • **BP.2018** • **USP 41** • Ph. Eur. **8.0** (2014) **9.0** (2017) • Royal Decree **I1270** •

HAZARDOUS: C.E: 607-095-00-3 • RTECS: OM 9625000 • LD50 oral rat 708 mg/kg • LD50 skn rbt 1.560 mg/kg •



H: H302 • H319 • H335 • H315 • H317 •

P: P264 • P261 • P270 • P271 • P272 • P501 • P280 • P301+P312 • P302+P352 • P304+P340 • P305+P351+P338 • P312 • P321 • P330 • P332+P313 • P333+P313 • P337+P313 • P362 • P363 • P403+P233 • P405 •

TRANSPORT REGULATIONS: UN: 3261 • ADR: 8/III • IMDG: 8/III • IATA: 8/III • PAX: 860 • CAO: 864 • (E) •

OBSERVATIONS: Storage away from direct light. •

SPECIFICATIONS:

| | |
|---------------------------------------|-------------|
| Assay (Acidim.) calc. a.d.s. | 99,0-101,0% |
| Identity : | |
| Identity according to Pharmacopoeias: | passes test |

Maximum limit of impurities

| | |
|---|-------------|
| Appearance of solution | passes test |
| Insoluble matter in H ₂ O | passes test |
| Residue on ignition (as SO ₄) | 0,1 % |
| Residual solvents (Ph.Eur.) | passes test |
| Fumaric Acid | passes test |
| Water (H ₂ O) | 1,5 % |
| Heavy metals (as Pb) | 0,001% |

Fe 0,0005 %

Elemental impurities (ICH Q3D):

Class 1

| | |
|----|---------|
| Cd | 0,5 ppm |
| Pb | 2 ppm |
| As | 1,5 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 |