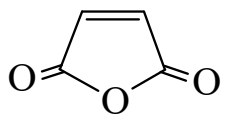
>>**Entry Name: Maleic anhydride,** 8CI
Synonym(s): 2,5-Furandione, 9CI. Butenedioic anhydride



CAS Registry Number: 108-31-6

Molecular Formula: $C_4H_2O_3$
Molecular Weight: 98.058
Accurate Mass: 98.000395
Percentage Composition: C 49.00%; H 2.06%; O 48.95%
Source/Synthesis: Manuf. by catalytic oxidn. of Benzene HMJ64-R, Butane BGV93-D or C_4 hydrocarbons
Use/Importance: Used in manuf. of polyester and alkyd-type resins, dye intermeds., lubricating oil additives and Fumaric acid CVQ85-P. Powerful dienophile in Diels-Alder reactions
Physical Description: Orthorhombic needles ($CHCl_3$ or by subl.)
Melting Point: Mp 52.8°
Boiling Point: Bp 202°. Bp_{20} 95°
Solubility: Spar. sol. petrol
Other Data: Hygroscopic solid, hydrolyses on storage. Copolym. with vinyl chloride: r_{MA} 0.08, r_{VC} 0.296 (typical values, 75°); *Q* 0.23; *e* 2.25. Copolym. with vinylidene chloride: r_{VDC} 9.0; r_{MA} 0.0 (typical values): *Q* 0.86; *e* 3.69
Hazard & Toxicity: Fl. p. 102/116°, autoignition temp. 477°. Metal ion- or base-catalysed exothermic dec. occurs above 150°. Corrosive and irritating to eyes, skin and mucous membranes. Inhalation can cause pulmonary oedema. LD_{50} (rat, orl) 400 mg/kg. Exp. reprod. effects. Prolonged or repeated exposure may cause dermatitis and asthma

Aldrich: M18-8
Fluka: 63210
Sigma: M0625

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