



**Physical Description:** Syrup

**Density:**  $d_4^{20}$  1.18

**Refractive Index:**  $n_D^{20}$  1.4560

>>**Derivative:** Di-Et ester

**Synonym(s):** Diethyl maleate

**CAS Registry Number:** 141-05-9

**Molecular Formula:**  $C_8H_{12}O_4$

**Molecular Weight:** 172.18

**Accurate Mass:** 172.07356

**Percentage Composition:** C 55.81%; H 7.02%; O 37.17%

**Use/Importance:** Fragrance ingredient, low oral tox.

**Melting Point:**  $Mp -10^\circ$

**Boiling Point:**  $Bp 225^\circ$ .  $Bp_{14}$  105-106°

**Solubility:** Insol.  $H_2O$ ; sol. EtOH,  $Et_2O$

**Refractive Index:**  $n_D^{20}$  1.4410

**Other Data:** Q/e values for copolym., Q 0.053, e 1.08. Copolym. with vinyl chloride,  $r_{EM}$  0.0,  $r_{VC}$  0.8 (typical values)

**Hazard & Toxicity:** Skin and eye irritant

**Aldrich:** W50500-5

**Fluka:** 63219

**Sigma:** M5887

>>**Derivative:** Dipropyl ester

**Synonym(s):** Dipropyl maleate

**CAS Registry Number:** 2432-63-5

**Molecular Formula:**  $C_{10}H_{16}O_4$

**Molecular Weight:** 200.234

**Accurate Mass:** 200.10486

**Percentage Composition:** C 59.98%; H 8.05%; O 31.96%

**Boiling Point:**  $Bp_{12}$  126°

**Density:**  $d^{20}$  1.024

**Refractive Index:**  $n_D^{20}$  1.4433

>>**Derivative:** Di-2-propenyl ester

**CAS Registry Number:** 999-21-3

**Molecular Formula:**  $C_{10}H_{12}O_4$

**Molecular Weight:** 196.202

**Accurate Mass:** 196.07356

**Percentage Composition:** C 61.22%; H 6.16%; O 32.62%

**Physical Description:** Liq. with pungent odour

**Melting Point:**  $Mp -47^\circ$

**Boiling Point:**  $Bp_{0.5}$  112°

**Density:**  $d^{25}$  1.07

**Refractive Index:**  $n_D^{25}$  1.4660

**Hazard & Toxicity:** Skin irritant.  $LD_{50}$  (rat, orl) 300 mg/kg

**Aldrich:** 29122-6

**Fluka:** 63230

>>**Derivative:** Monobutyl ester

**Synonym(s):** Butyl maleate

**CAS Registry Number:** 925-21-3

**Molecular Formula:**  $C_8H_{12}O_4$

**Molecular Weight:** 172.18

**Accurate Mass:** 172.07356

**Percentage Composition:** C 55.81%; H 7.02%; O 37.17%

**Physical Description:** Oil

**Density:**  $d_4^{25}$  1.09

**Refractive Index:**  $n_D^{25}$  1.4554

>>**Derivative:** Dibutyl ester

**Synonym(s):** Dibutyl maleate