



**Molecular Weight:** 144.127  
**Accurate Mass:** 144.04226  
**Percentage Composition:** C 50.00%; H 5.59%; O 44.40%  
**Melting Point:** Mp 66-68° (65°)  
**Boiling Point:** Bp<sub>16</sub> 147°  
**Solubility:** Sol. EtOH, Me<sub>2</sub>CO  
**Aldrich:** 12842-2  
**Fluka:** 47985

>>Derivative: Di-Et ester  
Synonym(s): Diethyl fumarate

**CAS Registry Number:** 623-91-6  
**Molecular Formula:** C<sub>8</sub>H<sub>12</sub>O<sub>4</sub>  
**Molecular Weight:** 172.18  
**Accurate Mass:** 172.07356  
**Percentage Composition:** C 55.81%; H 7.02%; O 37.17%  
**Use/Importance:** Fragrance ingredient  
**Physical Description:** Liq.  
**Melting Point:** Mp 1-2°  
**Boiling Point:** Bp 218-219°. Bp<sub>10</sub> 95-96°  
**Solubility:** Insol. H<sub>2</sub>O; sol. Me<sub>2</sub>CO, CHCl<sub>3</sub>  
**Density:** d<sup>20</sup> 1.045  
**Refractive Index:** n<sub>D</sub><sup>20</sup> 1.4412  
**Other Data:** Q/e values for copolym., Q 0.25, e 2.26. Copolym. with vinyl chloride: r<sub>DE</sub> 0.47, r<sub>VC</sub> 0.12 (typical values, 60°); Q 0.61; e 1.25  
**Hazard & Toxicity:** LD<sub>50</sub> (rat, orl) 1780 mg/kg

**Aldrich:** D9565-4  
**Fluka:** 47930

>>Derivative: Dipropyl ester  
Synonym(s): Dipropyl fumarate

**CAS Registry Number:** 14595-35-8  
**Molecular Formula:** C<sub>10</sub>H<sub>16</sub>O<sub>4</sub>  
**Molecular Weight:** 200.234  
**Accurate Mass:** 200.10486  
**Percentage Composition:** C 59.98%; H 8.05%; O 31.96%  
**Boiling Point:** Bp<sub>5</sub> 110°  
**Density:** d<sup>20</sup> 1.013  
**Refractive Index:** n<sub>D</sub><sup>20</sup> 1.4439

>>Derivative: Diisopropyl ester  
Synonym(s): Diisopropyl fumarate

**CAS Registry Number:** 7283-70-7  
**Molecular Formula:** C<sub>10</sub>H<sub>16</sub>O<sub>4</sub>  
**Molecular Weight:** 200.234  
**Accurate Mass:** 200.10486  
**Percentage Composition:** C 59.98%; H 8.05%; O 31.96%  
**Boiling Point:** Bp 225-226°

>>Derivative: Di-2-propenyl ester  
Synonym(s): Di-2-propenyl fumarate. Diallyl fumarate

**CAS Registry Number:** 2807-54-7  
**Molecular Formula:** C<sub>10</sub>H<sub>12</sub>O<sub>4</sub>  
**Molecular Weight:** 196.202  
**Accurate Mass:** 196.07356  
**Percentage Composition:** C 61.22%; H 6.16%; O 32.62%  
**Use/Importance:** Crosslinking comonomer  
**Physical Description:** Liq. with pungent odour  
**Boiling Point:** Bp<sub>3</sub> 140°  
**Solubility:** Insol. H<sub>2</sub>O  
**Density:** d<sup>25</sup> 1.07  
**Refractive Index:** n<sub>D</sub><sup>20</sup> 1.4664  
**Hazard & Toxicity:** Skin irritant  
**Other:** PB: D03540