



**Molecular Weight:** 560.899  
**Accurate Mass:** 560.48046  
**Percentage Composition:** C 77.09%; H 11.50%; O 11.41%  
**Melting Point:** Mp 38-40°  
**Optical Rotation:**  $[\alpha]_{\text{D}}^{23} +1.2$  (c, 0.85 in  $\text{CHCl}_3$ )

>>Variant: (R,Z)-form

**Synonym(s):** Ricinoleic acid. 12-Hydroxyoleic acid. Ricinusoleic acid. Ricinic acid. Ricinolic acid

**CAS Registry Number:** 141-22-0

**Molecular Formula:**  $\text{C}_{18}\text{H}_{34}\text{O}_3$   
**Molecular Weight:** 298.465  
**Accurate Mass:** 298.250795  
**Percentage Composition:** C 72.44%; H 11.48%; O 16.08%  
**Biological Source:** Occurs in castor oil and other oils eg. grape, *Lesquerella densipila* and ergot (*Claviceps purpurea*)  
**Use/Importance:** Used in polymer manuf., textile finishing and vaginal jellies  
**Physical Description:** Viscous liq.  
**Melting Point:** Mp 5.5°  
**Boiling Point:**  $\text{Bp}_{10}$  245°  
**Optical Rotation:**  $[\alpha]_{\text{D}}^{22} +6.67$  (c, 5 in  $\text{Me}_2\text{CO}$ ).  $[\alpha]_{\text{D}}^{26} +7.15$  (c, 5 in  $\text{Me}_2\text{CO}$ )  
**Solubility:** Insol.  $\text{H}_2\text{O}$ ; sol. most org. solvs.  
**Refractive Index:**  $n_{\text{D}}^{20}$  1.4697

**Fluka:** 83903

**Rare Chemicals Library:** S55937-7

**Sigma:** R8625

>>Derivative: Me ester

**CAS Registry Number:** 141-24-2

**Boiling Point:**  $\text{Bp}_{15}$  225-227°

**Optical Rotation:**  $[\alpha]_{400} +14.9$

**Sigma:** R7018

>>Derivative: Et ester

**CAS Registry Number:** 55066-53-0

**Boiling Point:**  $\text{Bp}_{13}$  258°

**Optical Rotation:**  $[\alpha]_{\text{D}}^{22} +5.28$

**Sigma:** R2126

>>Derivative: Butyl ester

**CAS Registry Number:** 151-13-3

**Molecular Formula:**  $\text{C}_{22}\text{H}_{42}\text{O}_3$

**Molecular Weight:** 354.572

**Accurate Mass:** 354.313395

**Percentage Composition:** C 74.52%; H 11.94%; O 13.54%

**Boiling Point:**  $\text{Bp}_{13}$  278°

**Density:**  $d^{22}$  0.91

**Refractive Index:**  $n_{\text{D}}^{23}$  1.4566

>>Derivative: 12-Hydroxy-9-octadecenyl ester

**Synonym(s):** Ricinoleyl ricinoleate

**CAS Registry Number:** 36781-76-7

**Molecular Formula:**  $\text{C}_{36}\text{H}_{68}\text{O}_4$

**Molecular Weight:** 564.931

**Accurate Mass:** 564.51176

**Percentage Composition:** C 76.54%; H 12.13%; O 11.33%

**Other:** PB R02020