Oswal-Desai viscosity blending equation

(1) $\ln \mu_{12} = x_1 \cdot \ln \mu_1 + x_2 \cdot \ln \mu_2 + \epsilon\, x_1\, x_2 + K_1\, x_1\, x_2\, (x_1 - x_2) + K_2\, x_1\, x_2\, (x_1 - x_2)^2$

where

μ_{12}	dynamic viscosity of fluid mixture	μ_1	dynamic viscosity of the 1st fluid component	μ_2	dynamic viscosity of the 2nd fluid component
$\epsilon,\ K_1,\ K_2$	empirical model parameters	x_1	mole fraction of the 1st fluid component	x_2	mole fraction of the 2nd fluid component

The empirical parameters $\epsilon,\ K_1,\ K_2$ can be fitted to lab data.

See also

Physics / Fluid Dynamics / Fluid Mixing Rules / Mixing Rules for Viscosity

Reference

S.L. Oswal,H.S. Desai, Studies of viscosity and excess molar volume of binary mixtures. Fluid Phase Equilibria 149 (1998) 359-376.