kinetic activity factor

A factor involving activity coefficients that appears as a multiplier in the rate equation. For a bimolecular reaction the factor is

$$\frac{y_A \, y_B}{y_\ddagger},$$

where y_A, y_B and $y_\ddagger$ are the activity coefficients for the reactants A and B and the activated complex, respectively. For a unimolecular reaction the factor is

$$\frac{y_A}{y_\ddagger},$$

and for a trimolecular reaction it is

$$\frac{y_A \, y_B \, y_C}{y_\ddagger}.$$

Source:
PAC, 1996, *68*, 149 *(A glossary of terms used in chemical kinetics, including reaction dynamics (IUPAC Recommendations 1996))* on page 171