
¹In this table we have neglected the Poynting correction to the pure component standard states.

²If a gaseous or liquid mixture are describable by an equation of state, we have $a_i = \frac{f_i(T, P, x)}{f_i(T, P = 1 \text{ bar})} = \frac{x_i P \phi_i(T, P, x)}{(1 \text{ bar}) \phi_i(T, P = 1 \text{ bar})}$ where the fugacity coefficients $\phi_i(T, P, x)$ and $\phi_i(T, P = 1 \text{ bar})$ are computed from the equation of state.

³If a liquid or liquid mixture is describable by an equation of state, the same equations as for gases or gaseous mixtures are used.

State	Standard State
Pure gas	Pure gas $G_i^\circ = G_i^V(T, P = 1 \text{ bar})$
Species in a gaseous mixture	Pure gas ² $G_i^\circ = G_i^V(T, P = 1 \text{ bar})$
Pure liquid ³	Pure liquid $G_i^\circ = G_i^L(T, P = 1 \text{ bar})$
Species in a liquid mixture ³	Pure liquid ² $G_i^\circ = G_i^L(T, P = 1 \text{ bar})$
Species in a 1 molal ideal solution	$G_i^\circ = G_i(T, P = 1 \text{ bar}, M_i = 1)$ (see Eq. 7.8-15)
Species as a pure liquid with infinite-dilution properties	$G_i^\circ = G_i^*(T, P = 1 \text{ bar}, x_i = 1)$
Pure solid	Pure solid $G_i^\circ = G_i^S(T, P = 1 \text{ bar})$
Species in a solid mixture	Pure solid $G_i^\circ = G_i^S(T, P = 1 \text{ bar})$
Dissolved electrolyte in solution	Dissolved electrolyte, each ion at unit molality in $G_i^\circ = \nu_+ G_{A+}(T, P = 1 \text{ bar}, M_{A+} = 1)$ $+ \nu_- G_{B-}(T, P = 1 \text{ bar}, M_{B-} = 1)$