

THERMODYNAMIC AND TRANSPORT PROPERTIES OF R-1234yf

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ABSTRACT - Data are provided for temperature, pressure, density, enthalpy, entropy, specific heat at constant pressure, thermal conductivity, viscosity, and surface tension for saturated mixtures and slightly superheated vapors of R-1234yf. The thermodynamic property data are generated using the approach illustrated in Brown (2007a,b,c, 2008a,b) and the transport property data are estimated using the methodology described in Brown et al. (2009). To provide the reader with some sense of the predictive capability of these estimation techniques, data for R-134a generated by them are compared to those of REFPROP 8.0 (Lemmon et al. 2007). Moreover, data generated by these predictive methods for R-1234yf are compared, where possible, to the open literature (e.g., Spatz and Minor 2008).