

TABLE 1a.—REDUCED DYNAMIC (ABSOLUTE), $\eta_{red.}$, AND KINEMATIC, $\nu_{red.}$, VISCOSITY OF *liquid* MERCURY

$T_{red.}$	$\eta_{red.}$	$\nu_{red.}$	
0.135 = m.p.	4.94	1.85 ₉	↑ Experimental Range ↓
0.215	2.91 ₈	1.12 ₅	
0.273	2.47 ₆	0.97 ₂	
0.331	2.18 ₈	0.87 ₅	
0.388	1.95 ₀	0.79 ₅	
0.445	1.82 ₃	0.75 ₉	
0.503	1.73 ₈	0.74 ₀	
0.561	1.64 ₄	0.709	↑ Extrapolated Range ↓
0.619	1.568		
0.677	1.50 ₈	0.701	
0.735	1.45 ₄		
0.792	1.39 ₉	0.709	
0.850	1.34 ₂		
0.907	1.28 ₈	0.755	
0.965	1.17 ₆		
1.000 = c.p.	1.000	1.000	

TABLE 1b.—REDUCED DYNAMIC (ABSOLUTE), $\eta_{red.}$, AND KINEMATIC, $\nu_{red.}$, VISCOSITY OF THE *saturated vapour* OF mercury

$T_{red.}$	$\eta_{red.}$	$\nu_{red.}$
0.331	0.095 ₂	343
0.445	0.207 ₃	41.9
0.561	0.317	12.3
0.677	0.439	6.16
0.792	0.561	3.48
0.850	0.629	2.72
0.907	0.683	2.01
0.965	0.776	1.37 ₅
1.000	1.000	1.000

TABLE 2a.—REDUCED DYNAMIC (ABSOLUTE), $\eta_{red.}$, AND KINEMATIC, $\nu_{red.}$, VISCOSITY OF *liquid* POTASSIUM

$T_{red.}$	$\eta_{red.}$	$\nu_{red.}$		
0.1375 = m.p.	10.77	2.208	↑ Experimental Range ↓	
0.204	5.31	1.14 ₃		
0.286	3.56	0.8169		
0.367	2.83	0.694 ₇		
0.449	2.32 ₇	0.615 ₂		
0.490	2.17 ₃	0.597 ₃		
0.531	2.03 ₈	0.583 ₅		
0.571	1.92 ₃	0.574 ₀		
0.653	1.77 ₃	0.585 ₁		↑ Extrapolated Range ↓
0.735	1.61 ₂	0.595 ₆		
0.816	1.48 ₇	0.631 ₀		
0.898	1.36 ₂	0.680 ₆		
0.980	1.18 ₈	0.792 ₁		
1.000 = c.p.	1.000	1.000		

also useful to compare graphs of other substances for which similar

ON on *Chemical Process Principles*, correlation of many properties of the reduced viscosity⁽⁶⁾ vs. reduced rates, "This relationship is based on of viscosity with temperature and is approximately the same for all

n's concepts further and extended activity. He specifically uses liquid to the Watson viscosity relationship. ys fit, in view of the very nature of er substances. Thus, for example, times higher than their N.B.P.,

whether metals, as a class, do or ume of experimental information elting point to the critical point— h as hydrocarbons (and recently ements—H₂, O₂, N₂, Cl₂—and the ther as molecules or atoms (in the liquid by comparatively weak *van*

als (and presumably other typical ances (a comparison with a third such as NaCl—will have to be ntire liquid range becomes avail-

sities (or specific volumes) of the made of the same properties, all ferences (1) and (2). The reduced , of the three metals have been ted, as a function of reduced le 2a and 2b for potassium and the critical viscosities and critical d in Table 6.

nciples, p. 870, Vol. 3, J. Wiley, New

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