

Estimate the specific volume of the saturated isobutane at 300 K

T _c	408.1 K		
P _c	36.5 bar	T	300 K
Ω	0.283		
R	83.14 cm ³ .bar/(mol.K)		

Solution:

T _r	0.735
P _r	0.084
Z	0.012

P _s	3.078
P _s experimental	3.704

Z _c	0.265
Z _c Experimental	0.283
Error	-6.3%

V=ZRT/P	97.88 cm ³ /mol
V _L experimental	105.90 cm ³ /mol
Error	-7.6%

V _c	246.545 cm ³ /mol
V _c Experimental	263.000 cm ³ /mol
Error	-6.3%

V _v	6091.78 cm ³ /mol
V _v experimental	6031.00 cm ³ /mol
Error	1.0%

Temperature range for Lee-Kesler method		Pressure range for Lee-Kesler method	
T _{min}	122.43 K	P _{min}	0.365 bar
T _{max}	1632.4 K	P _{max}	365 bar

Taftan Data
Email: support@taftan.com

If you want to know more about "Taftan Data" or other software developed by this company please visit our website:

<http://www.taftan.com>