1-Dodecanol, 2-octyl-

Other names: 2-Octyl-1-dodecanol
2-Octyldecanol
2-Octyldodecan-1-ol
2-Octyldodecanol
2-Octyldodecyl alcohol
Eutanol G
Exxal 20
Fine Oxocol 2000
Guerbet C20
Isofol 20
Jarcol I 20
Kalcohl 200G
Michel XO-150-20
NSC 2405
OHV 180
Octyldodecanol
Rilanit G 20
Risonol 20SP
Standamul G

Inchi: InChI=1S/C20H42O/c1-3-5-7-9-11-12-14-16-18-20(19-21)17-15-13-10-8-6-4-2/h20-21H,3

InchiKey: LEACJMVNYZDSKR-UHFFFAOYSA-N

Formula: C20H42O

SMILES: CCCCCCCCCCC(CO)CCCCCCCC

Mol. weight [g/mol]: 298.55

CAS: 5333-42-6

Physical Properties

Property code	Value	Unit	Source
gf	-21.74	kJ/mol	Joback Method
hf	-613.64	kJ/mol	Joback Method
hfus	48.12	kJ/mol	Joback Method
hvap	76.41	kJ/mol	Joback Method
log10ws	-7.22		Crippen Method
logp	6.876		Crippen Method
mcvol	298.530	ml/mol	McGowan Method
pc	1083.49	kPa	Joback Method
tb	748.74	K	Joback Method

tc	918.70	K	Joback Method
tf	360.98	K	Joback Method
vc	1.169	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	927.34	J/mol×K	748.74	Joback Method
cpg	946.63	J/mol×K	777.07	Joback Method
cpg	965.04	J/mol×K	805.39	Joback Method
cpg	982.61	J/mol×K	833.72	Joback Method
cpg	999.36	J/mol×K	862.05	Joback Method
cpg	1015.33	J/mol×K	890.37	Joback Method
cpg	1030.55	J/mol×K	918.70	Joback Method
dvisc	0.0052543	Pa×s	360.98	Joback Method
dvisc	0.0009971	Pa×s	425.61	Joback Method
dvisc	0.0002932	Pa×s	490.23	Joback Method
dvisc	0.0001147	Pa×s	554.86	Joback Method
dvisc	0.0000546	Pa×s	619.49	Joback Method
dvisc	0.0000299	Pa×s	684.11	Joback Method
dvisc	0.0000181	Pa×s	748.74	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.45771e+01
Coeff. B	-5.27559e+03
Coeff. C	-1.13352e+02
Temperature range (K), min.	482.55
Temperature range (K), max.	682.73

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5333426&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume