DITETRADECYL ETHER

Other names: 15-Oxanonacosane
Tetradecane, 1,1'-oxybis-
Tetradecyl ether
Inchi: InChI=1S/C28H58O/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-28-26-24-22-20-18-16-1
InchiKey: HANWHVWXFQSQGJ-UHFFFAOYSA-N
Formula: C28H58O
SMILES: CCCCCCCCCCCCCCCOCCCCCCCCCCCCCC
Mol. weight [g/mol]: 410.77

Physical Properties

Property code	Value	Unit	Source
af	1.2018		Cheméo Relay (1.0)
gf	79.88	kJ/mol	Joback Method
hf	-752.15	kJ/mol	Cheméo Relay (1.0)
hfus	69.46	kJ/mol	Joback Method
hvap	135.90	kJ/mol	Cheméo Relay (1.0)
ie	9.78	eV	Cheméo Relay (1.0)
log10ws	-9.71		Cheméo Relay (1.0)
logp	10.405		Crippen Method
mcvol	411.250	ml/mol	McGowan Method
pc	649.78	kPa	Joback Method
tb	634.89	K	Cheméo Relay (1.0)
tc	810.85	K	Cheméo Relay (1.0)
tf	308.90	K	Cheméo Relay (1.0)
vc	1.634	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1384.56	J/mol×K	862.46	Joback Method
cpg	1517.66	J/mol×K	1059.66	Joback Method
cpg	1498.72	J/mol×K	1026.79	Joback Method
cpg	1478.56	J/mol×K	993.93	Joback Method
cpg	1457.12	J/mol×K	961.06	Joback Method

cpg	1434.34	J/mol×K	928.19	Joback Method
cpg	1410.17	J/mol×K	895.33	Joback Method
dvisc	0.0000808	Pa×s	645.00	Joback Method
dvisc	0.0000243	Pa×s	862.46	Joback Method
dvisc	0.0000337	Pa×s	789.98	Joback Method
dvisc	0.0000499	Pa×s	717.49	Joback Method
dvisc	0.0009084	Pa×s	427.55	Joback Method
dvisc	0.0001475	Pa×s	572.52	Joback Method
dvisc	0.0003209	Pa×s	500.03	Joback Method
hfust	113.39	kJ/mol	316.80	NIST Webbook

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):
Cheméo Relay (1.0, beta):
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5412986&Units=SI
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

af: Acentric Factor
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
hfust: Enthalpy of fusion at a given temperature
hvap: Enthalpy of vaporization at standard conditions
ie: Ionization energy
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume