

Triethylene glycol diethyl ether

Inchi: InChI=1S/C10H22O4/c1-3-11-5-7-13-9-10-14-8-6-12-4-2/h3-10H2,1-2H3
InchiKey: KIAMPLQEZAMORJ-UHFFFAOYSA-N
Formula: C10H22O4
SMILES: CCOCCOCCOCCOCC
Mol. weight [g/mol]: 206.18

Physical Properties

Property code	Value	Unit	Source
af	0.6701		Cheméo Relay (1.0)
gf	-386.68	kJ/mol	Joback Method
hf	-760.92	kJ/mol	Cheméo Relay (1.0)
hfus	26.41	kJ/mol	Joback Method
hvap	67.77	kJ/mol	Cheméo Relay (1.0)
ie	9.30	eV	Cheméo Relay (1.0)
log10ws	-0.97		Cheméo Relay (1.0)
logp	1.063		NCMS SOLV-DB
mcvol	175.240	ml/mol	McGowan Method
pc	1982.35	kPa	Joback Method
tb	516.89	K	Cheméo Relay (1.0)
tc	667.50	K	Cheméo Relay (1.0)
tf	218.22	K	Cheméo Relay (1.0)
vc	0.686	m3/kmol	Cheméo Relay (1.0)

Correlations

Information	Value
Property code	cpg
Equation	$Y = A + B \cdot T + C \cdot T^2 + D \cdot T^3 + E \cdot T.$
Y unit	J/mol×K
Coeff. A	9.57980e+01
Coeff. B	7.01040e-01
Coeff. C	-7.62000e-05
Coeff. D	-1.11400e-07
Coeff. E	0.00000e+00

Basis	predicted
Temperature range (K), min.	273.00
Temperature range (K), max.	1000.00

Information	Value
Property code	dvisc
Equation	$Y = \exp(A + B/T + C \cdot \ln(T) + D \cdot T^E)$
Y unit	Pa·s
Coeff. A	-1.24468e+01
Coeff. B	1.74040e+03
Coeff. C	0.00000e+00
Coeff. D	0.00000e+00
Coeff. E	0.00000e+00
Basis	predicted
Comment	Liquid phase. Joback/Reid (1987), valid from Tf to 0.7·Tc.
Temperature range (K), min.	291.38
Temperature range (K), max.	476.45

Sources

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

NCMS SOLV-DB: <http://solvdb.ncms.org/common01.idc?solvno=04499994A>

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: <http://link.springer.com/article/10.1007/BF02311772>

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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
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

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