Decaethylene glycol, monoallyl ether, acetate

Inchi: InChI=1S/C25H48O12/c1-3-4-27-5-6-28-7-8-29-9-10-30-11-12-31-13-14-32-15-16-33-17
InchiKey: ZAJPTYZVTJIYMH-UHFFFAOYSA-N
Formula: C25H48O12
SMILES: C=CCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOC(C)=O
Mol. weight [g/mol]: 540.64

Physical Properties

Property code	Value	Unit	Source
gf	-1036.46	kJ/mol	Joback Method
hf	-2000.90	kJ/mol	Joback Method
hfus	73.89	kJ/mol	Joback Method
hvap	103.83	kJ/mol	Joback Method
log10ws	0.12		Crippen Method
logp	0.902		Crippen Method
mcvol	424.950	ml/mol	McGowan Method
pc	730.46	kPa	Joback Method
rinpol	3296.00		NIST Webbook
rinpol	3298.00		NIST Webbook
rinpol	3304.00		NIST Webbook
rinpol	3297.00		NIST Webbook
rinpol	3298.00		NIST Webbook
rinpol	3296.00		NIST Webbook
rinpol	3300.00		NIST Webbook
rinpol	3300.00		NIST Webbook
rinpol	3300.00		NIST Webbook
rinpol	3296.00		NIST Webbook
rinpol	3300.00		NIST Webbook
rinpol	3300.00		NIST Webbook
rinpol	3300.00		NIST Webbook
rinpol	3298.00		NIST Webbook
tb	1068.57	K	Joback Method
tc	1359.49	K	Joback Method
tf	664.21	K	Joback Method
vc	1.621	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1500.50	J/mol×K	1068.57	Joback Method
cpg	1513.61	J/mol×K	1117.06	Joback Method
cpg	1521.31	J/mol×K	1165.54	Joback Method
cpg	1523.38	J/mol×K	1214.03	Joback Method
cpg	1519.61	J/mol×K	1262.52	Joback Method
cpg	1509.80	J/mol×K	1311.01	Joback Method
cpg	1493.72	J/mol×K	1359.49	Joback Method
dvisc	0.0000189	Pa×s	664.21	Joback Method
dvisc	0.0000106	Pa×s	731.60	Joback Method
dvisc	0.0000065	Pa×s	799.00	Joback Method
dvisc	0.0000043	Pa×s	866.39	Joback Method
dvisc	0.0000031	Pa×s	933.78	Joback Method
dvisc	0.0000023	Pa×s	1001.18	Joback Method
dvisc	0.0000017	Pa×s	1068.57	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R151901&Units=SI
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume