2-[2-[2-[2-[2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy)eth

Other names: Dodecaethylene glycol
Inchi: InChI=1S/C24H50O13/c25-1-3-27-5-7-29-9-11-31-13-15-33-17-19-35-21-23-37-24-22-36
InchiKey: WRZXKWFJEFFURH-UHFFFAOYSA-N
Formula: C24H50O13
SMILES: OCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 546.65

Physical Properties

Property code	Value	Unit	Source
gf	-1277.44	kJ/mol	Joback Method
hf	-2297.57	kJ/mol	Joback Method
hfus	79.16	kJ/mol	Joback Method
hvap	128.89	kJ/mol	Joback Method
log10ws	1.64		Crippen Method
logp	-0.846		Crippen Method
mcvol	425.330	ml/mol	McGowan Method
pc	804.79	kPa	Joback Method
rinpol	3766.10		NIST Webbook
tb	1179.50	K	Joback Method
tc	1628.40	K	Joback Method
tf	726.41	K	Joback Method
vc	1.615	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1550.22	J/mol×K	1179.50	Joback Method
cpg	1549.35	J/mol×K	1254.32	Joback Method
cpg	1534.10	J/mol×K	1329.13	Joback Method
cpg	1503.71	J/mol×K	1403.95	Joback Method
cpg	1457.40	J/mol×K	1478.77	Joback Method
cpg	1394.40	J/mol×K	1553.59	Joback Method
cpg	1313.91	J/mol×K	1628.40	Joback Method
dvisc	0.0000009	Pa×s	726.41	Joback Method

dvisc	0.0000003	Pa×s	801.92	Joback Method
dvisc	0.0000002	Pa×s	877.44	Joback Method
dvisc	8.1818096e-08	Pa×s	952.95	Joback Method
dvisc	4.6432361e-08	Pa×s	1028.47	Joback Method
dvisc	2.8474097e-08	Pa×s	1103.98	Joback Method
dvisc	1.8589698e-08	Pa×s	1179.50	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=U352127&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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