HEPTAETHYLENE GLYCOL MONODODECYL ETHER

Other names: 3,6,9,12,15,18,21-Heptaoxatritriacontan-1-ol
C12H25(OC2H4)7OH
3,6,9,12,15,18,21-heptaoxatritriacontanol

Inchi: InChI=1S/C26H54O8/c1-2-3-4-5-6-7-8-9-10-11-13-28-15-17-30-19-21-32-23-25-34-26-24-33-22-20-31-18-16-29-14-12-27/h27H,2-26H2,1H3

InchiKey: DWHIUNMOTRUVPG-UHFFFAOYSA-N

Formula: C26H54O8

SMILES: CCCCCCCCCCCCOCCOCCOCCOCCOCCOCCOCCO

Mol. weight [g/mol]: 494.71

Physical Properties

Property code	Value	Unit	Source
af	1.5578		Cheméo Relay (1.0)
gf	-703.78	kJ/mol	Joback Method
hf	-1593.47	kJ/mol	Cheméo Relay (1.0)
hfus	75.50	kJ/mol	Joback Method
hvap	141.79	kJ/mol	Cheméo Relay (1.0)
ie	9.85	eV	Cheméo Relay (1.0)
log10ws	-4.10		Cheméo Relay (1.0)
logp	4.016		Crippen Method
mcvol	424.160	ml/mol	McGowan Method
pc	714.54	kPa	Joback Method
tb	733.06	K	Cheméo Relay (1.0)
tc	893.37	K	Cheméo Relay (1.0)
tf	264.12	K	Cheméo Relay (1.0)
vc	1.641	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1531.12	J/mol×K	1043.40	Joback Method
cpg	1552.44	J/mol×K	1092.89	Joback Method
cpg	1569.39	J/mol×K	1142.37	Joback Method
cpg	1581.92	J/mol×K	1191.86	Joback Method
cpg	1589.97	J/mol×K	1241.35	Joback Method

cpg	1593.49	J/mol×K	1290.84	Joback Method
cpg	1592.42	J/mol×K	1340.32	Joback Method
dvisc	0.0000262	Pa×s	599.21	Joback Method
dvisc	0.0000098	Pa×s	673.24	Joback Method
dvisc	0.0000045	Pa×s	747.27	Joback Method
dvisc	0.0000024	Pa×s	821.31	Joback Method
dvisc	0.0000014	Pa×s	895.34	Joback Method
dvisc	0.0000009	Pa×s	969.37	Joback Method
dvisc	0.0000006	Pa×s	1043.40	Joback Method

Sources

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
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=C3055978&Units=SI

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