3,6,9,12,15,18,21,24,27,30-decaoxadotriacontane-1

Other names: 2-[2-[2-[2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]e
Inchi: InChI=1S/C22H46O12/c23-1-3-25-5-7-27-9-11-29-13-15-31-17-19-33-21-22-34-20-18-32
InchiKey: PSVXZQVXSXSQRO-UHFFFAOYSA-N
Formula: C22H46O12
SMILES: OCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 502.59
CAS: 6809-70-7

Physical Properties

Property code	Value	Unit	Source
gf	-1189.28	kJ/mol	Joback Method
hf	-2124.07	kJ/mol	Joback Method
hfus	72.79	kJ/mol	Joback Method
hvap	122.02	kJ/mol	Joback Method
log10ws	1.57		Crippen Method
logp	-0.863		Crippen Method
mcvol	391.280	ml/mol	McGowan Method
pc	909.43	kPa	Joback Method
rinpol	3499.20		NIST Webbook
tb	1111.32	K	Joback Method
tc	1472.81	K	Joback Method
tf	681.64	K	Joback Method
vc	1.486	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1414.39	J/mol×K	1111.32	Joback Method
cpg	1424.09	J/mol×K	1171.57	Joback Method
cpg	1425.81	J/mol×K	1231.82	Joback Method
cpg	1419.18	J/mol×K	1292.07	Joback Method
cpg	1403.83	J/mol×K	1352.32	Joback Method
cpg	1379.40	J/mol×K	1412.56	Joback Method
cpg	1345.52	J/mol×K	1472.81	Joback Method

dvisc	0.0000023	Pa×s	681.64	Joback Method
dvisc	0.0000008	Pa×s	753.25	Joback Method
dvisc	0.0000004	Pa×s	824.87	Joback Method
dvisc	0.0000002	Pa×s	896.48	Joback Method
dvisc	0.0000001	Pa×s	968.09	Joback Method
dvisc	6.4210012e-08	Pa×s	1039.71	Joback Method
dvisc	4.1500322e-08	Pa×s	1111.32	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6809707&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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