N,n-di(2-hydroxy ethyl)-dodecanamide, dodecanoic acid mono ester

Inchi: InChI=1S/C28H55NO4/c1-3-5-7-9-11-13-15-17-19-21-27(31)29(23-25-30)24-26-33-28(32

InchiKey: LEPBHONUTGAJFK-UHFFFAOYSA-N

Formula: C28H55NO4

SMILES: CCCCCCCCCCCC(=O)OCCN(CCO)C(=O)CCCCCCCCCCC

Mol. weight [g/mol]: 469.74

CAS: 29006-25-5

Physical Properties

Property code	Value	Unit	Source
gf	-204.00	kJ/mol	Joback Method
hf	-1063.33	kJ/mol	Joback Method
hfus	79.77	kJ/mol	Joback Method
hvap	112.55	kJ/mol	Joback Method
log10ws	-8.01		Crippen Method
logp	7.192		Crippen Method
mcvol	430.240	ml/mol	McGowan Method
pc	727.70	kPa	Joback Method
tb	1074.82	K	Joback Method
tc	1372.20	K	Joback Method
tf	620.70	K	Joback Method
vc	1.671	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1559.00	J/mol×K	1074.82	Joback Method
cpg	1583.39	J/mol×K	1124.38	Joback Method
cpg	1605.34	J/mol×K	1173.95	Joback Method
cpg	1625.09	J/mol×K	1223.51	Joback Method
cpg	1642.83	J/mol×K	1273.08	Joback Method
cpg	1658.80	J/mol×K	1322.64	Joback Method
cpg	1673.20	J/mol×K	1372.20	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C29006255&Units=SI

Legend

cpg:	Ideal gas heat capacity
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume