Phenylacetamide, N-octadecyl-

Inchi: InChI=1S/C26H45NO/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-20-23-27-26(28)24-25-2
InchiKey: PMNNKCGDKSIBLA-UHFFFAOYSA-N
Formula: C26H45NO
SMILES: CCCCCCCCCCCCCCCCCCCNC(=O)Cc1ccccc1
Mol. weight [g/mol]: 387.64

Physical Properties

Property code	Value	Unit	Source
gf	240.92	kJ/mol	Joback Method
hf	-402.55	kJ/mol	Joback Method
hfus	63.84	kJ/mol	Joback Method
hvap	88.93	kJ/mol	Joback Method
log10ws	-8.77		Crippen Method
logp	7.607		Crippen Method
mcvol	364.990	ml/mol	McGowan Method
pc	914.39	kPa	Joback Method
rinpol	3168.00		NIST Webbook
rinpol	3168.00		NIST Webbook
tb	925.00	K	Joback Method
tc	1132.50	K	Joback Method
tf	511.79	K	Joback Method
vc	1.425	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1226.62	J/mol×K	925.00	Joback Method
cpg	1246.46	J/mol×K	959.58	Joback Method
cpg	1265.06	J/mol×K	994.17	Joback Method
cpg	1282.50	J/mol×K	1028.75	Joback Method
cpg	1298.88	J/mol×K	1063.33	Joback Method
cpg	1314.26	J/mol×K	1097.92	Joback Method
cpg	1328.74	J/mol×K	1132.50	Joback Method

Sources

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=U407236&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume