Phenylacetamide, N,N-bis(2-ethylhexyl)-

Inchi: InChI=1S/C24H41NO/c1-5-9-14-21(7-3)19-25(20-22(8-4)15-10-6-2)24(26)18-23-16-12-1
InchiKey: HXZGBCDTBWFOBH-UHFFFAOYSA-N
Formula: C24H41NO
SMILES: CCCCC(CC)CN(CC(CC)CCCC)C(=O)Cc1ccccc1
Mol. weight [g/mol]: 359.59

Physical Properties

Property code	Value	Unit	Source
gf	240.59	kJ/mol	Joback Method
hf	-357.77	kJ/mol	Joback Method
hfus	49.53	kJ/mol	Joback Method
hvap	79.31	kJ/mol	Joback Method
log10ws	-6.83		Crippen Method
logp	6.491		Crippen Method
mcvol	336.810	ml/mol	McGowan Method
pc	1031.25	kPa	Joback Method
rinpol	2434.00		NIST Webbook
rinpol	2434.00		NIST Webbook
tb	840.63	K	Joback Method
tc	1036.34	K	Joback Method
tf	439.06	K	Joback Method
vc	1.284	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1080.26	J/mol×K	840.63	Joback Method
cpg	1100.21	J/mol×K	873.25	Joback Method
cpg	1118.97	J/mol×K	905.87	Joback Method
cpg	1136.62	J/mol×K	938.49	Joback Method
cpg	1153.22	J/mol×K	971.10	Joback Method
cpg	1168.85	J/mol×K	1003.72	Joback Method
cpg	1183.56	J/mol×K	1036.34	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=U308410&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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