

trans-Cinnamamide, N,N-didecyl-3-trifluoromethyl-

Inchi: InChI=1S/C30H48F3NO/c1-3-5-7-9-11-13-15-17-24-34(25-18-16-14-12-10-8-6-4-2)29(35)
InchiKey: ASJHRYJKAJGDKG-GHVJWSGMSA-N
Formula: C30H48F3NO
SMILES: CCCCCCCCCCN(CCCCCCCCCC)C(=O)C=Cc1cccc(C(F)(F)F)c1
Mol. weight [g/mol]: 495.70

Physical Properties

Property code	Value	Unit	Source
gf	-215.01	kJ/mol	Joback Method
hf	-962.38	kJ/mol	Joback Method
hfus	73.76	kJ/mol	Joback Method
hvap	90.31	kJ/mol	Joback Method
log10ws	-10.53		Crippen Method
logp	9.829		Crippen Method
mcvol	422.360	ml/mol	McGowan Method
pc	698.02	kPa	Joback Method
rinpol	3393.00		NIST Webbook
rinpol	3393.00		NIST Webbook
tb	982.51	K	Joback Method
tc	1209.72	K	Joback Method
tf	548.31	K	Joback Method
vc	1.655	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1454.30	J/molxK	982.51	Joback Method
cpg	1476.34	J/molxK	1020.38	Joback Method
cpg	1497.21	J/molxK	1058.25	Joback Method
cpg	1517.07	J/molxK	1096.11	Joback Method
cpg	1536.11	J/molxK	1133.98	Joback Method
cpg	1554.47	J/molxK	1171.85	Joback Method
cpg	1572.33	J/molxK	1209.72	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.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=U308078&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
hvp:	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
rinp:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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