

2,4,5-Trifluoro-3-methoxybenzoic acid, 2-tridecyl ester

Inchi:	InChI=1S/C21H31F3O3/c1-4-5-6-7-8-9-10-11-12-13-15(2)27-21(25)16-14-17(22)19(24)2
InchiKey:	RWKSODMSPJZDHO-UHFFFAOYSA-N
Formula:	C21H31F3O3
SMILES:	CCCCCCCCCCCC(C)OC(=O)c1cc(F)c(F)c(OC)c1F
Mol. weight [g/mol]:	388.46

Physical Properties

Property code	Value	Unit	Source
gf	-725.96	kJ/mol	Joback Method
hf	-1256.75	kJ/mol	Joback Method
hfus	52.32	kJ/mol	Joback Method
hvap	75.99	kJ/mol	Joback Method
log10ws	-7.96		Crippen Method
logp	6.579		Crippen Method
mcvol	301.610	ml/mol	McGowan Method
pc	1067.27	kPa	Joback Method
rinpol	2362.00		NIST Webbook
rinpol	2362.00		NIST Webbook
tb	822.56	K	Joback Method
tc	1010.16	K	Joback Method
tf	484.09	K	Joback Method
vc	1.194	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	938.05	J/molxK	822.56	Joback Method
cpg	954.87	J/molxK	853.83	Joback Method
cpg	970.64	J/molxK	885.09	Joback Method
cpg	985.38	J/molxK	916.36	Joback Method
cpg	999.10	J/molxK	947.63	Joback Method
cpg	1011.81	J/molxK	978.89	Joback Method
cpg	1023.52	J/molxK	1010.16	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=U338456&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
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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