

4-Fluoro-2-trifluoromethylbenzoic acid, nonyl ester

Inchi:	InChI=1S/C17H22F4O2/c1-2-3-4-5-6-7-8-11-23-16(22)14-10-9-13(18)12-15(14)17(19,20
InchiKey:	MYQCUQGDRDVWNG-UHFFFAOYSA-N
Formula:	C17H22F4O2
SMILES:	CCCCCCCCCOC(=O)c1ccc(F)cc1C(F)(F)F
Mol. weight [g/mol]:	334.35

Physical Properties

Property code	Value	Unit	Source
gf	-824.91	kJ/mol	Joback Method
hf	-1218.61	kJ/mol	Joback Method
hfus	40.74	kJ/mol	Joback Method
hvap	61.63	kJ/mol	Joback Method
log10ws	-6.50		Crippen Method
logp	5.752		Crippen Method
mvol	241.150	ml/mol	McGowan Method
pc	1409.07	kPa	Joback Method
rinpol	1814.00		NIST Webbook
rinpol	1814.00		NIST Webbook
tb	695.14	K	Joback Method
tc	873.15	K	Joback Method
tf	409.75	K	Joback Method
vc	0.965	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	688.03	J/molxK	695.14	Joback Method
cpg	703.30	J/molxK	724.81	Joback Method
cpg	717.74	J/molxK	754.48	Joback Method
cpg	731.37	J/molxK	784.15	Joback Method
cpg	744.21	J/molxK	813.81	Joback Method
cpg	756.32	J/molxK	843.48	Joback Method
cpg	767.70	J/molxK	873.15	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=U338826&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws

Legend

cp_g:	Ideal gas heat capacity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
mc_{vol}:	McGowan's characteristic volume
pc:	Critical Pressure
rin_{pol}:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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