Glutaric acid, 2,2,3,3-tetrafluoropropyl (2-naphthyl)methyl ester

Inchi: InChI=1S/C19H18F4O4/c20-18(21)19(22,23)12-27-17(25)7-3-6-16(24)26-11-13-8-9-14-4

InchiKey: QVJZDFSQSUUYSF-UHFFFAOYSA-N

Formula: C19H18F4O4

SMILES: O=C(CCCC(=O)OCC(F)(F)C(F)F)OCc1ccc2ccccc2c1

Mol. weight [g/mol]: 386.34

Physical Properties

Property code	Value	Unit	Source
gf	-928.15	kJ/mol	Joback Method
hf	-1307.43	kJ/mol	Joback Method
hfus	42.59	kJ/mol	Joback Method
hvap	75.83	kJ/mol	Joback Method
log10ws	-5.86		Crippen Method
logp	4.497		Crippen Method
mcvol	257.310	ml/mol	McGowan Method
pc	1547.57	kPa	Joback Method
rinpol	2416.00		NIST Webbook
rinpol	2416.00		NIST Webbook
tb	830.75	K	Joback Method
tc	1032.53	K	Joback Method
tf	509.63	K	Joback Method
vc	1.016	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	777.27	J/mol×K	830.75	Joback Method
cpg	790.00	J/mol×K	864.38	Joback Method
cpg	801.80	J/mol×K	898.01	Joback Method
cpg	812.74	J/mol×K	931.64	Joback Method
cpg	822.86	J/mol×K	965.27	Joback Method
cpg	832.24	J/mol×K	998.90	Joback Method
cpg	840.93	J/mol×K	1032.53	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392193&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

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