N,N-Diethyl-2,3,3,3-tetrafluoropropionamide

Inchi: InChI=1S/C7H11F4NO/c1-3-12(4-2)6(13)7(10,11)5(8)9/h5H,3-4H2,1-2H3
InchiKey: OIZFBXRWENZGCS-UHFFFAOYSA-N
Formula: C7H11F4NO
SMILES: CCN(CC)C(=O)C(F)(F)C(F)F
Mol. weight [g/mol]: 201.16
CAS: 392-63-2

Physical Properties

Property code	Value	Unit	Source
gf	-788.92	kJ/mol	Joback Method
hf	-1031.33	kJ/mol	Joback Method
hfus	19.89	kJ/mol	Joback Method
hvap	35.01	kJ/mol	Joback Method
log10ws	-1.73		Crippen Method
logp	1.755		Crippen Method
mcvol	128.120	ml/mol	McGowan Method
pc	2545.61	kPa	Joback Method
tb	419.28	K	Joback Method
tc	574.11	K	Joback Method
tf	240.83	K	Joback Method
vc	0.506	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	279.81	J/mol×K	419.28	Joback Method
cpg	291.54	J/mol×K	445.09	Joback Method
cpg	302.70	J/mol×K	470.89	Joback Method
cpg	313.31	J/mol×K	496.70	Joback Method
cpg	323.38	J/mol×K	522.50	Joback Method
cpg	332.94	J/mol×K	548.31	Joback Method
cpg	342.00	J/mol×K	574.11	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	331.00	K	0.70	NIST Webbook

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=C392632&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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume