

Heptafluorobutyric acid, n-tetradecyl ester

Inchi: InChI=1S/C18H29F7O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-27-15(26)16(19,20)17(21,22)18
InchiKey: QIUJCCVBRUUHMI-UHFFFAOYSA-N
Formula: C18H29F7O2
SMILES: CCCCCCCCCCCCCCOC(=O)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 410.41
CAS: 7365-36-8

Physical Properties

Property code	Value	Unit	Source
gf	-1488.39	kJ/mol	Joback Method
hf	-2058.67	kJ/mol	Joback Method
hfus	44.48	kJ/mol	Joback Method
hvap	55.21	kJ/mol	Joback Method
log10ws	-7.51		Crippen Method
logp	7.064		Crippen Method
mcvol	284.310	ml/mol	McGowan Method
pc	1002.71	kPa	Joback Method
rinpol	1672.60		NIST Webbook
rinpol	1668.00		NIST Webbook
rinpol	1657.00		NIST Webbook
rinpol	1672.60		NIST Webbook
rinpol	1668.00		NIST Webbook
rinpol	1657.00		NIST Webbook
ripol	1701.00		NIST Webbook
ripol	1701.00		NIST Webbook
tb	672.73	K	Joback Method
tc	828.60	K	Joback Method
tf	376.17	K	Joback Method
vc	1.161	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	850.73	J/mol×K	672.73	Joback Method

cpg	867.40	J/mol×K	698.71	Joback Method
cpg	883.23	J/mol×K	724.69	Joback Method
cpg	898.24	J/mol×K	750.66	Joback Method
cpg	912.49	J/mol×K	776.64	Joback Method
cpg	926.01	J/mol×K	802.62	Joback Method
cpg	938.85	J/mol×K	828.60	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7365368&Units=SI
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

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.cheméo.com/cid/73-870-5/Heptafluorobutyric-acid-n-tetradecyl-ester.pdf>

Generated by Cheméo on 2025-12-24 09:10:29.112291677 +0000 UTC m=+6315626.642332330.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.