

Pimelic acid, 4-methyl-2-pentyl 2-pentyl ester

Inchi:	InChI=1S/C18H34O4/c1-6-10-15(4)21-17(19)11-8-7-9-12-18(20)22-16(5)13-14(2)3/h14-1
InchiKey:	FQHHNSLXOYUTNV-UHFFFAOYSA-N
Formula:	C18H34O4
SMILES:	CCCC(C)OC(=O)CCCCC(=O)OC(C)CC(C)C
Mol. weight [g/mol]:	314.46

Physical Properties

Property code	Value	Unit	Source
gf	-374.48	kJ/mol	Joback Method
hf	-920.29	kJ/mol	Joback Method
hfus	37.38	kJ/mol	Joback Method
hvap	72.81	kJ/mol	Joback Method
log10ws	-5.06		Crippen Method
logp	4.647		Crippen Method
mvol	279.360	ml/mol	McGowan Method
pc	1248.61	kPa	Joback Method
rinpol	1951.00		NIST Webbook
rinpol	1951.00		NIST Webbook
tb	762.50	K	Joback Method
tc	945.56	K	Joback Method
tf	391.94	K	Joback Method
vc	1.073	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	850.95	J/molxK	762.50	Joback Method
cpg	868.82	J/molxK	793.01	Joback Method
cpg	885.70	J/molxK	823.52	Joback Method
cpg	901.60	J/molxK	854.03	Joback Method
cpg	916.55	J/molxK	884.54	Joback Method
cpg	930.54	J/molxK	915.05	Joback Method
cpg	943.60	J/molxK	945.56	Joback Method
dvisc	0.0019037	Paxs	391.94	Joback Method

dvisc	0.0007062	Paxs	453.70	Joback Method
dvisc	0.0003322	Paxs	515.46	Joback Method
dvisc	0.0001837	Paxs	577.22	Joback Method
dvisc	0.0001139	Paxs	638.98	Joback Method
dvisc	0.0000768	Paxs	700.74	Joback Method
dvisc	0.0000552	Paxs	762.50	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=U393790&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	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
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

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