

6,6-Diethylcosane

Inchi:	InChI=1S/C24H50/c1-5-9-11-12-13-14-15-16-17-18-19-21-23-24(7-3,8-4)22-20-10-6-2/h
InchiKey:	UHAOBMJEECFQKK-UHFFFAOYSA-N
Formula:	C24H50
SMILES:	CCCCCCCCCCCCCCC(CC)(CC)CCCC
Mol. weight [g/mol]:	338.65

Physical Properties

Property code	Value	Unit	Source
gf	154.04	kJ/mol	Joback Method
hf	-547.44	kJ/mol	Joback Method
hfus	50.50	kJ/mol	Joback Method
hvap	67.72	kJ/mol	Joback Method
log10ws	-9.63		Crippen Method
logp	9.464		Crippen Method
mcvol	349.020	ml/mol	McGowan Method
pc	814.93	kPa	Joback Method
rinsol	2296.00		NIST Webbook
tb	745.29	K	Joback Method
tc	916.52	K	Joback Method
tf	362.66	K	Joback Method
vc	1.369	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1088.46	J/molxK	745.29	Joback Method
cpg	1111.31	J/molxK	773.83	Joback Method
cpg	1133.11	J/molxK	802.37	Joback Method
cpg	1153.90	J/molxK	830.91	Joback Method
cpg	1173.73	J/molxK	859.45	Joback Method
cpg	1192.65	J/molxK	887.99	Joback Method
cpg	1210.70	J/molxK	916.52	Joback Method
dvisc	0.0025379	Paxs	362.66	Joback Method
dvisc	0.0007963	Paxs	426.43	Joback Method

dvisc	0.0003378	Paxs	490.20	Joback Method
dvisc	0.0001746	Paxs	553.97	Joback Method
dvisc	0.0001034	Paxs	617.75	Joback Method
dvisc	0.0000676	Paxs	681.52	Joback Method
dvisc	0.0000475	Paxs	745.29	Joback Method

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=R415775&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	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
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

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