

Hexadecane, 7-decyl

Inchi:	InChI=1S/C26H54/c1-4-7-10-13-15-17-19-22-25-26(23-20-12-9-6-3)24-21-18-16-14-11-8
InchiKey:	DVHJNJCIKNWPSK-UHFFFAOYSA-N
Formula:	C26H54
SMILES:	CCCCCCCCCCC(CCCCC)CCCCCCCC
Mol. weight [g/mol]:	366.71

Physical Properties

Property code	Value	Unit	Source
gf	165.60	kJ/mol	Joback Method
hf	-585.25	kJ/mol	Joback Method
hfus	59.57	kJ/mol	Joback Method
hvap	73.08	kJ/mol	Joback Method
log10ws	-10.46		Crippen Method
logp	10.244		Crippen Method
mcvol	377.200	ml/mol	McGowan Method
pc	728.10	kPa	Joback Method
rinpol	2447.00		NIST Webbook
tb	793.84	K	Joback Method
tc	971.96	K	Joback Method
tf	367.78	K	Joback Method
vc	1.486	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1216.69	J/molxK	793.84	Joback Method
cpg	1240.72	J/molxK	823.53	Joback Method
cpg	1263.59	J/molxK	853.21	Joback Method
cpg	1285.35	J/molxK	882.90	Joback Method
cpg	1306.05	J/molxK	912.59	Joback Method
cpg	1325.72	J/molxK	942.27	Joback Method
cpg	1344.42	J/molxK	971.96	Joback Method
dvisc	0.0023771	Paxs	367.78	Joback Method
dvisc	0.0006945	Paxs	438.79	Joback Method

dvisc	0.0002858	Paxs	509.80	Joback Method
dvisc	0.0001462	Paxs	580.81	Joback Method
dvisc	0.0000865	Paxs	651.82	Joback Method
dvisc	0.0000568	Paxs	722.83	Joback Method
dvisc	0.0000402	Paxs	793.84	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=R47956&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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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