2-Methylpentacosane

Inchi: InChI=1S/C26H54/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26
InchiKey: ZRNSSRODJSSVEJ-UHFFFAOYSA-N
Formula: C26H54
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCC(C)C
Mol. weight [g/mol]: 366.71
CAS: 629-87-8

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	2564.00		NIST Webbook
rinpol	2564.00		NIST Webbook
rinpol	2562.40		NIST Webbook
rinpol	2563.00		NIST Webbook
rinpol	2564.00		NIST Webbook
rinpol	2560.00		NIST Webbook
rinpol	2562.00		NIST Webbook
rinpol	2565.30		NIST Webbook
rinpol	2563.00		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/mol×K	793.84	Joback Method
cpg	1240.72	J/mol×K	823.53	Joback Method
cpg	1263.59	J/mol×K	853.21	Joback Method
cpg	1285.35	J/mol×K	882.90	Joback Method
cpg	1306.05	J/mol×K	912.59	Joback Method
cpg	1325.72	J/mol×K	942.27	Joback Method
cpg	1344.42	J/mol×K	971.96	Joback Method
dvisc	0.0023771	Pa×s	367.78	Joback Method
dvisc	0.0006945	Pa×s	438.79	Joback Method
dvisc	0.0002858	Pa×s	509.80	Joback Method
dvisc	0.0001462	Pa×s	580.81	Joback Method
dvisc	0.0000865	Pa×s	651.82	Joback Method
dvisc	0.0000568	Pa×s	722.83	Joback Method
dvisc	0.0000402	Pa×s	793.84	Joback Method
hvapt	107.20	kJ/mol	556.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.46983e+01
Coeff. B	-5.21559e+03
Coeff. C	-1.63050e+02
Temperature range (K), min.	524.97
Temperature range (K), max.	718.68

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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=C629878&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume