Cyclopentane, heneicosyl-

Other names: Heneicosane, 1-cyclopentyl-
n-Heneicosylcyclopentane
Inchi: InChI=1S/C26H52/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-23-26-24-21-22
InchiKey: GNECQVKDNNGLCG-UHFFFAOYSA-N
Formula: C26H52
SMILES: CCCCCCCCCCCCCCCCCCCCCCC1CCCC1
Mol. weight [g/mol]: 364.69
CAS: 6703-82-8

Physical Properties

Property code	Value	Unit	Source
chl	-17014.20 ± 6.70	kJ/mol	NIST Webbook
gf	204.59	kJ/mol	Joback Method
hf	-519.49	kJ/mol	Joback Method
hfl	-648.60 ± 6.70	kJ/mol	NIST Webbook
hfus	57.03	kJ/mol	Joback Method
hvap	73.73	kJ/mol	Joback Method
log10ws	-10.36		Crippen Method
logp	9.998		Crippen Method
mcvol	366.340	ml/mol	McGowan Method
pc	800.69	kPa	Joback Method
rinpol	2691.00		NIST Webbook
tb	809.56	K	Joback Method
tc	992.90	K	Joback Method
tf	45.20 ± 1.50	K	NIST Webbook
tf	318.40 ± 1.00	K	NIST Webbook
tf	318.35 ± 0.50	K	NIST Webbook
vc	1.433	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1339.83	J/mol×K	992.90	Joback Method
cpg	1212.39	J/mol×K	809.56	Joback Method

cpg	1236.55	J/mol×K	840.12	Joback Method
cpg	1259.47	J/mol×K	870.67	Joback Method
cpg	1281.19	J/mol×K	901.23	Joback Method
cpg	1301.79	J/mol×K	931.79	Joback Method
cpg	1321.32	J/mol×K	962.35	Joback Method
dvisc	0.0000647	Pa×s	809.56	Joback Method
dvisc	0.0021080	Pa×s	393.68	Joback Method
dvisc	0.0007638	Pa×s	462.99	Joback Method
dvisc	0.0003605	Pa×s	532.31	Joback Method
dvisc	0.0002023	Pa×s	601.62	Joback Method
dvisc	0.0001279	Pa×s	670.93	Joback Method
dvisc	0.0000881	Pa×s	740.25	Joback Method
hvapt	93.80	kJ/mol	517.50	NIST Webbook

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=C6703828&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chl: Standard liquid enthalpy of combustion
cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfl: Liquid phase 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
rinpol: Non-polar retention indices

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