

Eicosane, 10-butyl-10-propyl-

Inchi:	InChI=1S/C27H56/c1-5-9-12-14-16-18-20-22-26-27(23-8-4,24-11-7-3)25-21-19-17-15-13
InchiKey:	OBTFKVMSPBZBQP-UHFFFAOYSA-N
Formula:	C27H56
SMILES:	CCCCCCCCCCC(CCC)(CCCC)CCCCCCCCC
Mol. weight [g/mol]:	380.73
CAS:	55282-33-2

Physical Properties

Property code	Value	Unit	Source
gf	179.30	kJ/mol	Joback Method
hf	-609.36	kJ/mol	Joback Method
hfus	58.27	kJ/mol	Joback Method
hvap	74.40	kJ/mol	Joback Method
log10ws	-10.88		Crippen Method
logp	10.635		Crippen Method
mvol	391.290	ml/mol	McGowan Method
pc	695.81	kPa	Joback Method
tb	813.93	K	Joback Method
tc	996.49	K	Joback Method
tf	197.00 ± 3.00	K	NIST Webbook
vc	1.536	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1282.03	J/mol×K	813.93	Joback Method
cpg	1306.42	J/mol×K	844.36	Joback Method
cpg	1329.60	J/mol×K	874.78	Joback Method
cpg	1351.65	J/mol×K	905.21	Joback Method
cpg	1372.63	J/mol×K	935.64	Joback Method
cpg	1392.59	J/mol×K	966.07	Joback Method
cpg	1411.62	J/mol×K	996.49	Joback Method
dvisc	0.0016537	Paxs	396.47	Joback Method
dvisc	0.0005159	Paxs	466.05	Joback Method

dvisc	0.0002178	Paxs	535.62	Joback Method
dvisc	0.0001122	Paxs	605.20	Joback Method
dvisc	0.0000662	Paxs	674.78	Joback Method
dvisc	0.0000431	Paxs	744.35	Joback Method
dvisc	0.0000302	Paxs	813.93	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55282332&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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