

1-Butyldecalin, trans

Inchi:	InChI=1S/C14H26/c1-2-3-7-12-9-6-10-13-8-4-5-11-14(12)13/h12-14H,2-11H2,1H3/t12?,1
InchiKey:	SVAKAMBIIAHLSL-ILMHWDKJSA-N
Formula:	C14H26
SMILES:	CCCCC1CCCC2CCCCC12
Mol. weight [g/mol]:	194.36

Physical Properties

Property code	Value	Unit	Source
gf	132.39	kJ/mol	Joback Method
hf	-231.67	kJ/mol	Joback Method
hfus	20.96	kJ/mol	Joback Method
hvap	46.96	kJ/mol	Joback Method
log10ws	-4.75		Crippen Method
logp	4.783		Crippen Method
mcvol	186.400	ml/mol	McGowan Method
pc	2001.91	kPa	Joback Method
rinsol	1424.00		NIST Webbook
tb	545.61	K	Joback Method
tc	753.90	K	Joback Method
tf	265.10	K	Joback Method
vc	0.701	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	486.63	J/molxK	545.61	Joback Method
cpg	511.33	J/molxK	580.32	Joback Method
cpg	534.64	J/molxK	615.04	Joback Method
cpg	556.61	J/molxK	649.75	Joback Method
cpg	577.29	J/molxK	684.47	Joback Method
cpg	596.73	J/molxK	719.18	Joback Method
cpg	614.98	J/molxK	753.90	Joback Method
dvisc	0.0039102	Paxs	265.10	Joback Method
dvisc	0.0019806	Paxs	311.85	Joback Method

dvisc	0.0011979	Paxs	358.60	Joback Method
dvisc	0.0008136	Paxs	405.36	Joback Method
dvisc	0.0005986	Paxs	452.11	Joback Method
dvisc	0.0004665	Paxs	498.86	Joback Method
dvisc	0.0003794	Paxs	545.61	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R578133&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
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

Latest version available from:

<https://www.chemeo.com/cid/16-284-9/1-Butyldecalin-trans.pdf>

Generated by Cheméo on 2024-04-25 19:01:28.655398929 +0000 UTC m=+16360937.575976244.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.