

Decyl isopropyl ether

Inchi:	InChI=1S/C13H28O/c1-4-5-6-7-8-9-10-11-12-14-13(2)3/h13H,4-12H2,1-3H3
InchiKey:	GMABTASVJDBTFW-UHFFFAOYSA-N
Formula:	C13H28O
SMILES:	CCCCCCCCCOC(C)C
Mol. weight [g/mol]:	200.36

Physical Properties

Property code	Value	Unit	Source
gf	-48.86	kJ/mol	Joback Method
hf	-449.15	kJ/mol	Joback Method
hfus	27.09	kJ/mol	Joback Method
hvap	46.55	kJ/mol	Joback Method
log10ws	-4.46		Crippen Method
logp	4.552		Crippen Method
mcvol	199.900	ml/mol	McGowan Method
pc	1632.49	kPa	Joback Method
rinpol	1327.00		NIST Webbook
rinpol	1327.00		NIST Webbook
tb	518.82	K	Joback Method
tc	682.04	K	Joback Method
tf	243.50	K	Joback Method
vc	0.775	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	485.29	J/mol×K	518.82	Joback Method
cpg	502.80	J/mol×K	546.02	Joback Method
cpg	519.67	J/mol×K	573.23	Joback Method
cpg	535.91	J/mol×K	600.43	Joback Method
cpg	551.54	J/mol×K	627.64	Joback Method
cpg	566.56	J/mol×K	654.84	Joback Method
cpg	580.99	J/mol×K	682.04	Joback Method
dvisc	0.0061567	Paxs	243.50	Joback Method

dvisc	0.0020424	Paxs	289.39	Joback Method
dvisc	0.0009165	Paxs	335.27	Joback Method
dvisc	0.0004988	Paxs	381.16	Joback Method
dvisc	0.0003093	Paxs	427.05	Joback Method
dvisc	0.0002105	Paxs	472.93	Joback Method
dvisc	0.0001533	Paxs	518.82	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=U406338&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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