

Isopropyldecalin

Inchi:	InChI=1S/C13H24/c1-10(2)12-9-5-7-11-6-3-4-8-13(11)12/h10-13H,3-9H2,1-2H3
InchiKey:	VIJJVIFWVZYBLO-UHFFFAOYSA-N
Formula:	C13H24
SMILES:	CC(C)C1CCCC2CCCCC21
Mol. weight [g/mol]:	180.33
CAS:	27193-29-9

Physical Properties

Property code	Value	Unit	Source
gf	121.53	kJ/mol	Joback Method
hf	-216.31	kJ/mol	Joback Method
hfus	14.84	kJ/mol	Joback Method
hvap	44.35	kJ/mol	Joback Method
log10ws	-4.09		Crippen Method
logp	4.249		Crippen Method
mcvol	172.310	ml/mol	McGowan Method
pc	2202.08	kPa	Joback Method
tb	522.29	K	Joback Method
tc	738.69	K	Joback Method
tf	238.83	K	Joback Method
vc	0.638	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	563.49	J/molxK	738.69	Joback Method
cpg	545.22	J/molxK	702.63	Joback Method
cpg	525.70	J/molxK	666.56	Joback Method
cpg	504.89	J/molxK	630.49	Joback Method
cpg	482.73	J/molxK	594.42	Joback Method
cpg	459.16	J/molxK	558.36	Joback Method
cpg	434.13	J/molxK	522.29	Joback Method
cpl	373.60	J/molxK	373.00	NIST Webbook
dvisc	0.0004630	Paxs	475.05	Joback Method

dvisc	0.0006044	Paxs	427.80	Joback Method
dvisc	0.0008429	Paxs	380.56	Joback Method
dvisc	0.0012919	Paxs	333.32	Joback Method
dvisc	0.0022799	Paxs	286.07	Joback Method
dvisc	0.0050372	Paxs	238.83	Joback Method
dvisc	0.0003722	Paxs	522.29	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C27193299&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

cp_g:	Ideal gas heat capacity
cp_l:	Liquid phase 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
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
mcvol:	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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