Decanol

Inchi: InChI=1S/C10H22O/c1-2-3-4-5-6-7-8-9-10-11/h11H,2-10H2,1H3
InchiKey: MWKFXSUHUHTGQN-UHFFFAOYSA-N
Formula: C10H22O
SMILES: CCCCCCCCCCO
Mol. weight [g/mol]: 158.28
CAS: 36729-58-5

Physical Properties

Property code	Value	Unit	Source
gf	-103.50	kJ/mol	Joback Method
hf	-401.96	kJ/mol	Joback Method
hfus	25.74	kJ/mol	Joback Method
hvap	54.53	kJ/mol	Joback Method
log10ws	-3.27		Crippen Method
logp	3.119		Crippen Method
mcvol	157.630	ml/mol	McGowan Method
pc	2298.11	kPa	Joback Method
rinpol	1258.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1259.00		NIST Webbook
rinpol	1259.00		NIST Webbook
rinpol	1270.00		NIST Webbook
rinpol	1264.00		NIST Webbook
rinpol	1264.00		NIST Webbook
rinpol	1270.00		NIST Webbook
rinpol	1266.00		NIST Webbook
rinpol	1271.00		NIST Webbook
rinpol	1267.00		NIST Webbook
rinpol	1259.00		NIST Webbook
rinpol	1257.00		NIST Webbook
rinpol	1260.00		NIST Webbook
rinpol	1257.00		NIST Webbook
rinpol	1255.00		NIST Webbook
rinpol	1262.00		NIST Webbook
rinpol	1259.00		NIST Webbook
rinpol	1274.00		NIST Webbook
rinpol	1273.00		NIST Webbook

rinpol	1270.00	NIST Webbook
rinpol	1252.00	NIST Webbook
rinpol	1247.00	NIST Webbook
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rinpol	1278.00	NIST Webbook
rinpol	1271.00	NIST Webbook
rinpol	1278.00	NIST Webbook
ripol	1766.00	NIST Webbook
ripol	1756.70	NIST Webbook
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ripol	1764.00	NIST Webbook
ripol	1766.00	NIST Webbook
ripol	1766.00	NIST Webbook

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ripol	1736.00		NIST Webbook
ripol	1766.00		NIST Webbook
ripol	1766.00		NIST Webbook
ripol	1735.00		NIST Webbook
ripol	1764.20		NIST Webbook
ripol	1766.00		NIST Webbook
ripol	1740.00		NIST Webbook
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ripol	1746.00		NIST Webbook
ripol	1765.00		NIST Webbook
ripol	1764.00		NIST Webbook
ripol	1784.90		NIST Webbook
ripol	1770.90		NIST Webbook
ripol	1763.10		NIST Webbook
ripol	1787.00		NIST Webbook
ripol	1782.40		NIST Webbook
ripol	1720.00		NIST Webbook
tb	520.38	K	Joback Method
tc	678.87	K	Joback Method

tf	263.28	K	Joback Method
vc	0.615	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.60	J/mol×K	520.38	Joback Method
cpg	441.87	J/mol×K	652.45	Joback Method
cpg	430.56	J/mol×K	626.04	Joback Method
cpg	418.80	J/mol×K	599.62	Joback Method
cpg	406.56	J/mol×K	573.21	Joback Method
cpg	393.83	J/mol×K	546.79	Joback Method
cpg	452.73	J/mol×K	678.87	Joback Method
dvisc	0.0001241	Pa×s	520.38	Joback Method
dvisc	0.0002072	Pa×s	477.53	Joback Method
dvisc	0.0003827	Pa×s	434.68	Joback Method
dvisc	0.0008083	Pa×s	391.83	Joback Method
dvisc	0.0020510	Pa×s	348.98	Joback Method
dvisc	0.0067547	Pa×s	306.13	Joback Method
dvisc	0.0327895	Pa×s	263.28	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C36729585&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume