

10-Dodecenol

Other names:	(E)10-Dodecen-1-ol 10-Dodecen-1-ol
Inchi:	InChI=1S/C12H24O/c1-2-3-4-5-6-7-8-9-10-11-12-13/h2-3,13H,4-12H2,1H3/b3-2+
InchiKey:	JLQAHGGMRAJUMJ-NSCUHMNNSA-N
Formula:	C12H24O
SMILES:	CC=CCCCCCCCCO
Mol. weight [g/mol]:	184.32
CAS:	35237-63-9

Physical Properties

Property code	Value	Unit	Source
gf	-6.44	kJ/mol	Joback Method
hf	-326.02	kJ/mol	Joback Method
hfus	31.13	kJ/mol	Joback Method
hvap	91.90	kJ/mol	NIST Webbook
log10ws	-3.96		Crippen Method
logp	3.676		Crippen Method
mcvol	181.510	ml/mol	McGowan Method
pc	2018.13	kPa	Joback Method
rinpol	1478.00		NIST Webbook
rinpol	1478.00		NIST Webbook
ripol	1959.00		NIST Webbook
ripol	2000.00		NIST Webbook
ripol	2000.00		NIST Webbook
ripol	2035.00		NIST Webbook
tb	570.30	K	Joback Method
tc	733.56	K	Joback Method
tf	280.74	K	Joback Method
vc	0.707	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	459.51	J/molxK	570.30	Joback Method

cpg	473.74	J/molxK	597.51	Joback Method
cpg	487.37	J/molxK	624.72	Joback Method
cpg	500.43	J/molxK	651.93	Joback Method
cpg	512.93	J/molxK	679.14	Joback Method
cpg	524.90	J/molxK	706.35	Joback Method
cpg	536.36	J/molxK	733.56	Joback Method
dvisc	0.0209597	Paxs	280.74	Joback Method
dvisc	0.0040712	Paxs	329.00	Joback Method
dvisc	0.0012026	Paxs	377.26	Joback Method
dvisc	0.0004685	Paxs	425.52	Joback Method
dvisc	0.0002211	Paxs	473.78	Joback Method
dvisc	0.0001199	Paxs	522.04	Joback Method
dvisc	0.0000721	Paxs	570.30	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.44974e+01
Coeff. B	-4.60063e+03
Coeff. C	-9.07560e+01
Temperature range (K), min.	414.52
Temperature range (K), max.	591.59

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C35237639&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
pvap:	Vapor pressure
ripol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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