

3-Decen-1-ol

Inchi:	InChI=1S/C10H20O/c1-2-3-4-5-6-7-8-9-10-11/h7-8,11H,2-6,9-10H2,1H3
InchiKey:	MTIJDFJGPCJFKE-UHFFFAOYSA-N
Formula:	C10H20O
SMILES:	CCCCCCC=CCCO
Mol. weight [g/mol]:	156.27
CAS:	69093-74-9

Physical Properties

Property code	Value	Unit	Source
gf	-23.28	kJ/mol	Joback Method
hf	-284.74	kJ/mol	Joback Method
hfus	25.95	kJ/mol	Joback Method
hvap	54.49	kJ/mol	Joback Method
log10ws	-3.13		Crippen Method
logp	2.895		Crippen Method
mcvol	153.330	ml/mol	McGowan Method
pc	2417.12	kPa	Joback Method
rinpol	1235.00		NIST Webbook
tb	524.54	K	Joback Method
tc	689.26	K	Joback Method
tf	258.20	K	Joback Method
vc	0.595	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	362.81	J/molxK	524.54	Joback Method
cpg	375.67	J/molxK	551.99	Joback Method
cpg	387.98	J/molxK	579.45	Joback Method
cpg	399.77	J/molxK	606.90	Joback Method
cpg	411.06	J/molxK	634.36	Joback Method
cpg	421.86	J/molxK	661.81	Joback Method
cpg	432.20	J/molxK	689.26	Joback Method
dvisc	0.0338296	Paxs	258.20	Joback Method

dvisc	0.0063373	Paxs	302.59	Joback Method
dvisc	0.0018223	Paxs	346.98	Joback Method
dvisc	0.0006952	Paxs	391.37	Joback Method
dvisc	0.0003228	Paxs	435.76	Joback Method
dvisc	0.0001727	Paxs	480.15	Joback Method
dvisc	0.0001027	Paxs	524.54	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.47068e+01
Coeff. B	-4.41251e+03
Coeff. C	-8.13040e+01
Temperature range (K), min.	387.32
Temperature range (K), max.	550.95

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=R202970&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
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
pvap:	Vapor pressure
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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