

(E)-Oct-3-enal

Inchi:	InChI=1S/C8H14O/c1-2-3-4-5-6-7-8-9/h5-6,8H,2-4,7H2,1H3/b6-5+
InchiKey:	WDWAUVJQFVTKEW-AATRIKPKSA-N
Formula:	C8H14O
SMILES:	CCCCC=CCC=O
Mol. weight [g/mol]:	126.20

Physical Properties

Property code	Value	Unit	Source
gf	-2.82	kJ/mol	Joback Method
hf	-176.81	kJ/mol	Joback Method
hfus	18.97	kJ/mol	Joback Method
hvap	40.08	kJ/mol	Joback Method
log10ws	-2.30		Crippen Method
logp	2.322		Crippen Method
mvol	120.850	ml/mol	McGowan Method
pc	2890.51	kPa	Joback Method
rinpol	1033.00		NIST Webbook
rinpol	1033.00		NIST Webbook
tb	435.26	K	Joback Method
tc	614.34	K	Joback Method
tf	216.84	K	Joback Method
vc	0.480	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	241.07	J/molxK	435.26	Joback Method
cpg	252.93	J/molxK	465.11	Joback Method
cpg	264.25	J/molxK	494.95	Joback Method
cpg	275.03	J/molxK	524.80	Joback Method
cpg	285.31	J/molxK	554.65	Joback Method
cpg	295.10	J/molxK	584.49	Joback Method
cpg	304.43	J/molxK	614.34	Joback Method
dvisc	0.0045537	Paxs	216.84	Joback Method

dvisc	0.0020114	Paxs	253.24	Joback Method
dvisc	0.0010910	Paxs	289.65	Joback Method
dvisc	0.0006784	Paxs	326.05	Joback Method
dvisc	0.0004641	Paxs	362.45	Joback Method
dvisc	0.0003402	Paxs	398.86	Joback Method
dvisc	0.0002628	Paxs	435.26	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R515949&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

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m_{cvol}:	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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