

2,4-Decadienal

Other names:	Deca-2,4-dienal
Inchi:	InChI=1S/C10H16O/c1-2-3-4-5-6-7-8-9-10-11/h6-10H,2-5H2,1H3
InchiKey:	JZQKTMZYLNHNFPL-UHFFFAOYSA-N
Formula:	C10H16O
SMILES:	CCCCC=CC=CC=O
Mol. weight [g/mol]:	152.23
CAS:	2363-88-4

Physical Properties

Property code	Value	Unit	Source
gf	94.24	kJ/mol	Joback Method
hf	-100.87	kJ/mol	Joback Method
hfus	24.35	kJ/mol	Joback Method
hvap	44.49	kJ/mol	Joback Method
log10ws	-3.00		Crippen Method
logp	2.878		Crippen Method
mcvol	144.730	ml/mol	McGowan Method
pc	2500.00	kPa	Joback Method
rinpol	1298.00		NIST Webbook
rinpol	1331.00		NIST Webbook
rinpol	1290.00		NIST Webbook
rinpol	1262.00		NIST Webbook
rinpol	1284.00		NIST Webbook
rinpol	1320.00		NIST Webbook
rinpol	1286.00		NIST Webbook
rinpol	1325.00		NIST Webbook
rinpol	1290.00		NIST Webbook
rinpol	1275.00		NIST Webbook
rinpol	1317.00		NIST Webbook
rinpol	1270.00		NIST Webbook
rinpol	1328.00		NIST Webbook
rinpol	1300.00		NIST Webbook
rinpol	1323.00		NIST Webbook
rinpol	1293.00		NIST Webbook
rinpol	1318.00		NIST Webbook
rinpol	1331.00		NIST Webbook
rinpol	1286.00		NIST Webbook

rinpol	1267.00	NIST Webbook
rinpol	1266.00	NIST Webbook
rinpol	1320.00	NIST Webbook
rinpol	1309.00	NIST Webbook
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rinpol	1298.00	NIST Webbook
rinpol	1269.00	NIST Webbook
rinpol	1282.00	NIST Webbook
rinpol	1262.00	NIST Webbook
rinpol	1290.00	NIST Webbook
rinpol	1280.00	NIST Webbook
rinpol	1313.00	NIST Webbook
rinpol	1331.00	NIST Webbook
ripol	1797.00	NIST Webbook
ripol	1762.00	NIST Webbook
ripol	1844.00	NIST Webbook
ripol	1824.00	NIST Webbook
ripol	1771.00	NIST Webbook

ripol	1762.00		NIST Webbook
ripol	1806.00		NIST Webbook
ripol	1764.00		NIST Webbook
ripol	1824.00		NIST Webbook
ripol	1811.00		NIST Webbook
ripol	1767.00		NIST Webbook
ripol	1815.00		NIST Webbook
ripol	1771.00		NIST Webbook
ripol	1800.00		NIST Webbook
tb	485.18	K	Joback Method
tc	669.38	K	Joback Method
tf	234.30	K	Joback Method
vc	0.573	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	309.28	J/molxK	485.18	Joback Method
cpg	322.72	J/molxK	515.88	Joback Method
cpg	335.45	J/molxK	546.58	Joback Method
cpg	347.52	J/molxK	577.28	Joback Method
cpg	358.96	J/molxK	607.98	Joback Method
cpg	369.81	J/molxK	638.68	Joback Method
cpg	380.10	J/molxK	669.38	Joback Method
dvisc	0.0044740	Paxs	234.30	Joback Method
dvisc	0.0018135	Paxs	276.11	Joback Method
dvisc	0.0009322	Paxs	317.93	Joback Method
dvisc	0.0005593	Paxs	359.74	Joback Method
dvisc	0.0003733	Paxs	401.55	Joback Method
dvisc	0.0002689	Paxs	443.37	Joback Method
dvisc	0.0002049	Paxs	485.18	Joback Method

Sources

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C2363884&Units=SI>

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
rinpola:	Non-polar retention indices
ripola:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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