

Cyclooctane, 1,2-diethyl-, cis

Inchi:	InChI=1S/C12H24/c1-3-11-9-7-5-6-8-10-12(11)4-2/h11-12H,3-10H2,1-2H3/t11-,12+
InchiKey:	XDADRYBKGGCGTEX-TXEJXXNPSA-N
Formula:	C12H24
SMILES:	CCC1CCCCCCC1CC
Mol. weight [g/mol]:	168.32

Physical Properties

Property code	Value	Unit	Source
gf	42.70	kJ/mol	Joback Method
hf	-269.35	kJ/mol	Joback Method
hfus	15.54	kJ/mol	Joback Method
hvap	42.77	kJ/mol	Joback Method
log10ws	-4.26		Crippen Method
logp	4.393		Crippen Method
mcvol	169.080	ml/mol	McGowan Method
pc	2167.36	kPa	Joback Method
rinpol	1013.00		NIST Webbook
rinpol	1013.00		NIST Webbook
tb	497.38	K	Joback Method
tc	703.99	K	Joback Method
tf	221.10	K	Joback Method
vc	0.624	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	396.56	J/mol×K	497.38	Joback Method
cpg	420.12	J/mol×K	531.81	Joback Method
cpg	442.56	J/mol×K	566.25	Joback Method
cpg	463.87	J/mol×K	600.68	Joback Method
cpg	484.08	J/mol×K	635.12	Joback Method
cpg	503.20	J/mol×K	669.55	Joback Method
cpg	521.24	J/mol×K	703.99	Joback Method
dvisc	0.0134104	Paxs	221.10	Joback Method

dvisc	0.0034442	Paxs	267.15	Joback Method
dvisc	0.0013193	Paxs	313.19	Joback Method
dvisc	0.0006463	Paxs	359.24	Joback Method
dvisc	0.0003723	Paxs	405.29	Joback Method
dvisc	0.0002400	Paxs	451.33	Joback Method
dvisc	0.0001679	Paxs	497.38	Joback Method

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=R294132&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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