

2,8-dichlorodecane

Inchi:	InChI=1S/C10H20Cl2/c1-3-10(12)8-6-4-5-7-9(2)11/h9-10H,3-8H2,1-2H3
InchiKey:	WPBSMBFXPAZGSZ-UHFFFAOYSA-N
Formula:	C10H20Cl2
SMILES:	CCC(Cl)CCCCC(C)Cl
Mol. weight [g/mol]:	211.17
CAS:	---

Physical Properties

Property code	Value	Unit	Source
gf	4.58	kJ/mol	Joback Method
hf	-291.77	kJ/mol	Joback Method
hfus	23.00	kJ/mol	Joback Method
hvap	45.85	kJ/mol	Joback Method
log10ws	-4.54		Crippen Method
logp	4.582		Crippen Method
mcvol	176.240	ml/mol	McGowan Method
pc	2000.12	kPa	Joback Method
ripol	1752.00		NIST Webbook
ripol	1752.00		NIST Webbook
ripol	1748.00		NIST Webbook
ripol	1748.00		NIST Webbook
tb	502.18	K	Joback Method
tc	683.82	K	Joback Method
tf	232.30	K	Joback Method
vc	0.681	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.69	J/molxK	502.18	Joback Method
cpg	395.59	J/molxK	532.45	Joback Method
cpg	409.82	J/molxK	562.73	Joback Method
cpg	423.40	J/molxK	593.00	Joback Method
cpg	436.35	J/molxK	623.27	Joback Method

cpg	448.68	J/mol×K	653.54	Joback Method
cpg	460.42	J/mol×K	683.82	Joback Method
dvisc	0.0106207	Paxs	232.30	Joback Method
dvisc	0.0033082	Paxs	277.28	Joback Method
dvisc	0.0014270	Paxs	322.26	Joback Method
dvisc	0.0007564	Paxs	367.24	Joback Method
dvisc	0.0004605	Paxs	412.22	Joback Method
dvisc	0.0003091	Paxs	457.20	Joback Method
dvisc	0.0002228	Paxs	502.18	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.39251e+01
Coeff. B	-4.20416e+03
Coeff. C	-8.46400e+01
Temperature range (K), min.	392.92
Temperature range (K), max.	572.72

Sources

The Yaws Handbook of Vapor Pressure:
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>
<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

McGowan Method:

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

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=R295739&Units=SI>

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

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