

10-Chloro-1-decanol

Other names:	1-Decanol, 10-chloro-10-Chlorodecan-1-ol
Inchi:	InChI=1S/C10H21ClO/c11-9-7-5-3-1-2-4-6-8-10-12/h12H,1-10H2
InchiKey:	OTUSESJECXGMIV-UHFFFAOYSA-N
Formula:	C10H21ClO
SMILES:	OCCCCCCCCCCI
Mol. weight [g/mol]:	192.73
CAS:	51309-10-5

Physical Properties

Property code	Value	Unit	Source
gf	-115.43	kJ/mol	Joback Method
hf	-417.70	kJ/mol	Joback Method
hfus	29.94	kJ/mol	Joback Method
hvap	58.92	kJ/mol	Joback Method
log10ws	-3.43		Crippen Method
logp	3.338		Crippen Method
mvol	169.870	ml/mol	McGowan Method
pc	2218.71	kPa	Joback Method
rinpol	1559.80		NIST Webbook
tb	557.81	K	Joback Method
tc	721.46	K	Joback Method
tf	293.20	K	Joback Method
vc	0.663	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	411.08	J/molxK	557.81	Joback Method
cpg	423.79	J/molxK	585.09	Joback Method
cpg	435.99	J/molxK	612.36	Joback Method
cpg	447.68	J/molxK	639.64	Joback Method
cpg	458.88	J/molxK	666.91	Joback Method
cpg	469.61	J/molxK	694.19	Joback Method

cpg	479.88	J/molxK	721.46	Joback Method
dvisc	0.0168697	Paxs	293.20	Joback Method
dvisc	0.0041536	Paxs	337.30	Joback Method
dvisc	0.0014142	Paxs	381.40	Joback Method
dvisc	0.0006020	Paxs	425.50	Joback Method
dvisc	0.0003008	Paxs	469.61	Joback Method
dvisc	0.0001693	Paxs	513.71	Joback Method
dvisc	0.0001044	Paxs	557.81	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	400.20	K	0.30	NIST Webbook

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=C51309105&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
rinpol:	Non-polar retention indices

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

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