

2-Norbornane carbonyl chloride

Other names:	Bicyclo[2.2.1]heptane-2-carbonyl chloride
Inchi:	InChI=1S/C8H11ClO/c9-8(10)7-4-5-1-2-6(7)3-5/h5-7H,1-4H2
InchiKey:	GDBUZLAZTFSUEL-UHFFFAOYSA-N
Formula:	C8H11ClO
SMILES:	O=C(Cl)C1CC2CCC1C2
Mol. weight [g/mol]:	158.62
CAS:	35202-90-5

Physical Properties

Property code	Value	Unit	Source
gf	-22.68	kJ/mol	Joback Method
hf	-217.67	kJ/mol	Joback Method
hfus	17.51	kJ/mol	Joback Method
hvap	44.22	kJ/mol	Joback Method
log10ws	-2.16		Crippen Method
logp	2.188		Crippen Method
mcvol	115.670	ml/mol	McGowan Method
pc	3427.87	kPa	Joback Method
tb	486.82	K	Joback Method
tc	706.49	K	Joback Method
tf	287.89	K	Joback Method
vc	0.444	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	254.81	J/mol×K	486.82	Joback Method
cpg	270.21	J/mol×K	523.43	Joback Method
cpg	284.55	J/mol×K	560.04	Joback Method
cpg	297.88	J/mol×K	596.65	Joback Method
cpg	310.27	J/mol×K	633.26	Joback Method
cpg	321.79	J/mol×K	669.88	Joback Method
cpg	332.51	J/mol×K	706.49	Joback Method
dvisc	0.0018435	Paxs	287.89	Joback Method

dvisc	0.0015883	Paxs	321.04	Joback Method
dvisc	0.0014072	Paxs	354.20	Joback Method
dvisc	0.0012729	Paxs	387.36	Joback Method
dvisc	0.0011697	Paxs	420.51	Joback Method
dvisc	0.0010883	Paxs	453.66	Joback Method
dvisc	0.0010225	Paxs	486.82	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	360.00 ± 1.00	K	2.30	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C35202905&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

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
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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