

5-Decen-1-ol, (E)-

Other names:	(E)-5-Decen-1-ol (E)-5-decenol
Inchi:	InChI=1S/C10H20O/c1-2-3-4-5-6-7-8-9-10-11/h5-6,11H,2-4,7-10H2,1H3/b6-5+
InchiKey:	WYPQHXMNVEVEB-AATRIKPKSA-N
Formula:	C10H20O
SMILES:	CCCCC=CCCCO
Mol. weight [g/mol]:	156.27
CAS:	56578-18-8

Physical Properties

Property code	Value	Unit	Source
gf	-23.28	kJ/mol	Joback Method
hf	-284.74	kJ/mol	Joback Method
hfus	25.95	kJ/mol	Joback Method
hvap	80.60	kJ/mol	NIST Webbook
log10ws	-3.13		Crippen Method
logp	2.895		Crippen Method
mcvol	153.330	ml/mol	McGowan Method
pc	2417.12	kPa	Joback Method
rinpwl	1247.00		NIST Webbook
ripwl	1803.00		NIST Webbook
tb	524.54	K	Joback Method
tc	689.26	K	Joback Method
tf	258.20	K	Joback Method
vc	0.595	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	362.81	J/mol×K	524.54	Joback Method
cpg	375.67	J/mol×K	551.99	Joback Method
cpg	387.98	J/mol×K	579.45	Joback Method
cpg	399.77	J/mol×K	606.90	Joback Method
cpg	411.06	J/mol×K	634.36	Joback Method

cpg	421.86	J/molxK	661.81	Joback Method
cpg	432.20	J/molxK	689.26	Joback Method
dvisc	0.0338296	Paxs	258.20	Joback Method
dvisc	0.0063373	Paxs	302.59	Joback Method
dvisc	0.0018223	Paxs	346.98	Joback Method
dvisc	0.0006952	Paxs	391.37	Joback Method
dvisc	0.0003228	Paxs	435.76	Joback Method
dvisc	0.0001727	Paxs	480.15	Joback Method
dvisc	0.0001027	Paxs	524.54	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	388.70	K	1.50	NIST Webbook
tbrp	388.50 ± 2.50	K	1.50	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C56578188&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
rinpol:	Non-polar retention indices
ripol:	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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