Indane-5-carboxaldehyde

Inchi: InChI=1S/C10H10O/c11-7-8-4-5-9-2-1-3-10(9)6-8/h4-7H,1-3H2
InchiKey: YNGGRNROMJXLCP-UHFFFAOYSA-N
Formula: C10H10O
SMILES: O=Cc1ccc2c(c1)CCC2
Mol. weight [g/mol]: 146.19

Physical Properties

Property code	Value	Unit	Source
gf	95.41	kJ/mol	Joback Method
hf	-28.58	kJ/mol	Joback Method
hfus	14.27	kJ/mol	Joback Method
hvap	48.40	kJ/mol	Joback Method
log10ws	-2.79		Crippen Method
logp	1.988		Crippen Method
mcvol	118.710	ml/mol	McGowan Method
pc	3718.02	kPa	Joback Method
rinpol	1320.00		NIST Webbook
rinpol	1320.00		NIST Webbook
rinpol	1320.00		NIST Webbook
ripol	2042.00		NIST Webbook
ripol	2042.00		NIST Webbook
tb	524.91	K	Joback Method
tc	753.83	K	Joback Method
tf	318.10	K	Joback Method
vc	0.463	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	261.44	J/mol×K	524.91	Joback Method
cpg	274.69	J/mol×K	563.06	Joback Method
cpg	286.96	J/mol×K	601.22	Joback Method
cpg	298.33	J/mol×K	639.37	Joback Method
cpg	308.87	J/mol×K	677.52	Joback Method

cpg	318.65	J/mol×K	715.67	Joback Method
cpg	327.74	J/mol×K	753.83	Joback Method
dvisc	0.0020037	Pa×s	318.10	Joback Method
dvisc	0.0014257	Pa×s	352.57	Joback Method
dvisc	0.0010778	Pa×s	387.04	Joback Method
dvisc	0.0008530	Pa×s	421.50	Joback Method
dvisc	0.0006993	Pa×s	455.97	Joback Method
dvisc	0.0005896	Pa×s	490.44	Joback Method
dvisc	0.0005083	Pa×s	524.91	Joback Method

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=R324966&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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