2-Fluorenecarboxaldehyde

Other names:	2-fluorenecarbaldehyde
	9H-Fluorene-2-carboxaldehyde
	9H-fluorene-2-carbaldehyde
	Fluorene-2-carboxaldehyde
	fluorene-2-carbaldehyde
Inchi:	InChI=1S/C14H10O/c15-9-10-5-6-14-12(7-10)8-11-3-1-2-4-13(11)14/h1-7,9H,8H2
InchiKey:	MNQGEQSXFDKAPY-UHFFFAOYSA-N
Formula:	C14H10O
SMILES:	O=Cc1ccc2c(c1)Cc1ccccc1-2
Mol. weight [g/mol]:	194.23
CAS:	30084-90-3

Physical Properties

Property code	Value	Unit	Source
gf	256.07	kJ/mol	Joback Method
hf	126.24	kJ/mol	Joback Method
hfus	22.48	kJ/mol	Joback Method
hvap	59.89	kJ/mol	Joback Method
log10ws	-4.66		Crippen Method
logp	3.070		Crippen Method
mcvol	151.310	ml/mol	McGowan Method
pc	3235.66	kPa	Joback Method
rinpol	1902.00		NIST Webbook
rinpol	292.70		NIST Webbook
rinpol	1902.00		NIST Webbook
tb	639.55	K	Joback Method
tc	884.15	K	Joback Method
tf	357.60	K	Vapour pressures, enthalpies and Gibbs energies of formation and sublimation of fluorene-2-carboxaldehyde
vc	0.595	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	432.13	J/mol×K	884.15	Joback Method
cpg	423.21	J/mol×K	843.38	Joback Method
cpg	413.76	J/mol×K	802.61	Joback Method
cpg	403.66	J/mol×K	761.85	Joback Method
cpg	392.77	J/mol×K	721.08	Joback Method
cpg	380.97	J/mol×K	680.32	Joback Method
cpg	368.13	J/mol×K	639.55	Joback Method
dvisc	0.0019162	Pa×s	409.16	Joback Method
dvisc	0.0007673	Pa×s	639.55	Joback Method
dvisc	0.0008513	Pa×s	601.15	Joback Method
dvisc	0.0009579	Pa×s	562.75	Joback Method
dvisc	0.0010966	Pa×s	524.36	Joback Method
dvisc	0.0012826	Pa×s	485.96	Joback Method
dvisc	0.0015409	Pa×s	447.56	Joback Method
hsubt	100.00 ± 3.40	kJ/mol	347.00	NIST Webbook

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Vapour pressures, enthalpies and Gibbs energies of formation and sublimation of fluorene-2-carboxaldehyde: https://www.doi.org/10.1016/j.jct.2017.03.021

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=C30084903&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

hsubt: Enthalpy of sublimation at a given temperature

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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume