3,5-Diiodosalicylaldehyde

Other names: Benzaldehyde, 2-hydroxy-3,5-diiodo-
Inchi: InChI=1S/C7H4I2O2/c8-5-1-4(3-10)7(11)6(9)2-5/h1-3,11H
InchiKey: MYWSBJKVOUZCIA-UHFFFAOYSA-N
Formula: C7H4I2O2
SMILES: O=Cc1cc(I)cc(I)c1O
Mol. weight [g/mol]: 373.91
CAS: 2631-77-8

Physical Properties

Property code	Value	Unit	Source
gf	-36.69	kJ/mol	Joback Method
hf	-83.37	kJ/mol	Joback Method
hfus	24.03	kJ/mol	Joback Method
hvap	73.26	kJ/mol	Joback Method
log10ws	-3.56		Crippen Method
logp	2.414		Crippen Method
mcvol	144.810	ml/mol	McGowan Method
pc	5029.93	kPa	Joback Method
tb	711.76	K	Joback Method
tc	1008.66	K	Joback Method
tf	489.95	K	Joback Method
vc	0.478	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	255.36	J/mol×K	711.76	Joback Method
cpg	261.18	J/mol×K	761.24	Joback Method
cpg	266.62	J/mol×K	810.73	Joback Method
cpg	271.89	J/mol×K	860.21	Joback Method
cpg	277.15	J/mol×K	909.69	Joback Method
cpg	282.62	J/mol×K	959.17	Joback Method
cpg	288.46	J/mol×K	1008.66	Joback Method
dvisc	0.0004535	Pa×s	489.95	Joback Method

dvisc	0.0002444	Pa×s	526.92	Joback Method
dvisc	0.0001429	Pa×s	563.89	Joback Method
dvisc	0.0000892	Pa×s	600.86	Joback Method
dvisc	0.0000588	Pa×s	637.82	Joback Method
dvisc	0.0000406	Pa×s	674.79	Joback Method
dvisc	0.0000291	Pa×s	711.76	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2631778&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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