Salsalate

Other names:	2-Carboxyphenyl salicylate
	o-Salicylsalicylic acid
	Benzoic acid, 2-hydroxy-, 2-carboxyphenyl ester
	Diacesal
	Diplosal
	Disalcid
	Disalicylic acid
	Disalyl
	Nobacid
	Sal Ester Sal
	Salical
	Salicylic acid, bimolecular ester
	Salicylic acid, salicylate
	Salicyloylsalicylic acid
	Salicylsalicylic acid
	Salina
	Saloxium
	Salysal
	Sasapirin
	Sasapyrine
	Sasapyrinum
	NSC-49171
	SAA
	Sasapyrin
	2-Hydroxybenzoic acid 2-carboxyphenyl ester
	Disalgesic
	Mono-gesic
	Salflex
	Salicyl salicylate
	Salicyloxysalicylic acid
Inchi:	InChI=1S/C14H10O5/c15-11-7-3-1-5-9(11)14(18)19-12-8-4-2-6-10(12)13(16)17/h1-8,15H
InchiKey:	WVYADZUPLLSGPU-UHFFFAOYSA-N
Formula:	C14H10O5
SMILES:	O=C(Oc1ccccc1C(=O)O)c1ccccc1O
Mol. weight [g/mol]:	258.23
CAS:	552-94-3

Physical Properties

Property code	Value	Unit	Source
chs	-5890.20	kJ/mol	NIST Webbook
gf	-372.09	kJ/mol	Joback Method
hf	-557.62	kJ/mol	Joback Method
hfus	33.97	kJ/mol	Joback Method
hvap	97.57	kJ/mol	Joback Method
log10ws	-3.17		Crippen Method
logp	2.310		Crippen Method
mcvol	181.350	ml/mol	McGowan Method
pc	4082.92	kPa	Joback Method
tb	881.02	K	Joback Method
tc	1117.60	K	Joback Method
tf	607.53	K	Joback Method
vc	0.619	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	561.15	J/mol×K	1117.60	Joback Method
cpg	553.98	J/mol×K	1078.17	Joback Method
cpg	546.63	J/mol×K	1038.74	Joback Method
cpg	539.00	J/mol×K	999.31	Joback Method
cpg	531.02	J/mol×K	959.88	Joback Method
cpg	522.57	J/mol×K	920.45	Joback Method
cpg	513.57	J/mol×K	881.02	Joback Method
dvisc	0.0000308	Pa×s	607.53	Joback Method
dvisc	0.0000011	Pa×s	881.02	Joback Method
dvisc	0.0000017	Pa×s	835.44	Joback Method
dvisc	0.0000026	Pa×s	789.86	Joback Method
dvisc	0.0000043	Pa×s	744.28	Joback Method
dvisc	0.0000076	Pa×s	698.69	Joback Method
dvisc	0.0000146	Pa×s	653.11	Joback Method
hfust	29.00	kJ/mol	430.20	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C552943&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

chs:	Standard solid enthalpy of combustion
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
hfust:	Enthalpy of fusion 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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume