Diallyl maleate

Other names:	2-Butenedioic acid (Z)-, di-2-propenyl ester
	DIALLYL ESTER
	Diallylester kyseliny maleinove
	MALEIC ACID
	Maleic acid, diallyl ester
	Sipomer dam
Inchi:	InChI=1S/C10H12O4/c1-3-7-13-9(11)5-6-10(12)14-8-4-2/h3-6H,1-2,7-8H2/b6-5-
InchiKey:	ZPOLOEWJWXZUSP-WAYWQWQTSA-N
Formula:	C10H12O4
SMILES:	C=CCOC(=O)C=CC(=O)OCC=C
Mol. weight [g/mol]:	196.20
CAS:	999-21-3

Physical Properties

Property code	Value	Unit	Source
gf	-178.62	kJ/mol	Joback Method
hf	-371.25	kJ/mol	Joback Method
hfus	24.87	kJ/mol	Joback Method
hvap	54.78	kJ/mol	Joback Method
log10ws	-1.29		Crippen Method
logp	1.001		Crippen Method
mcvol	153.740	ml/mol	McGowan Method
pc	2629.85	kPa	Joback Method
rinpol	1283.00		NIST Webbook
rinpol	1283.00		NIST Webbook
tb	578.30	K	Joback Method
tc	772.37	K	Joback Method
tf	338.18	K	Joback Method
vc	0.586	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	415.53	J/mol×K	772.37	Joback Method

cpg	406.86	J/mol×K	740.02	Joback Method
cpg	397.67	J/mol×K	707.68	Joback Method
cpg	387.94	J/mol×K	675.33	Joback Method
cpg	377.66	J/mol×K	642.99	Joback Method
cpg	366.81	J/mol×K	610.64	Joback Method
cpg	355.38	J/mol×K	578.30	Joback Method
dvisc	0.0016382	Pa×s	338.18	Joback Method
dvisc	0.0001722	Pa×s	578.30	Joback Method
dvisc	0.0002181	Pa×s	538.28	Joback Method
dvisc	0.0002867	Pa×s	498.26	Joback Method
dvisc	0.0003955	Pa×s	458.24	Joback Method
dvisc	0.0005801	Pa×s	418.22	Joback Method
dvisc	0.0009227	Pa×s	378.20	Joback Method
hvapt	77.70	kJ/mol	409.00	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	384.20	K	0.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.58243e+01
Coeff. B	-4.99030e+03
Coeff. C	-7.46740e+01
Temperature range (K), min.	395.87
Temperature range (K), max.	549.36

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	1.13494e+02
Coeff. B	-1.28924e+04
Coeff. C	-1.36200e+01

Coeff. D	4.00664e-06
Temperature range (K), min.	226.15
Temperature range (K), max.	693.00

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1186
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
KDB:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1186
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C999213&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
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-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