

# Diallyl maleate

<b>Other names:</b>	2-Butenedioic acid (Z)-, di-2-propenyl ester DIALLYL ESTER Diallylester kyseliny maleinove MALEIC ACID Maleic acid, diallyl ester Sipomer dam
<b>Inchi:</b>	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-
<b>InchiKey:</b>	ZPOLOEWJWXZUSP-WAYWQWQTSA-N
<b>Formula:</b>	C10H12O4
<b>SMILES:</b>	C=CCOC(=O)C=CC(=O)OCC=C
<b>Mol. weight [g/mol]:</b>	196.20
<b>CAS:</b>	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/molxK	772.37	Joback Method

cpg	355.38	J/molxK	578.30	Joback Method
cpg	366.81	J/molxK	610.64	Joback Method
cpg	377.66	J/molxK	642.99	Joback Method
cpg	387.94	J/molxK	675.33	Joback Method
cpg	397.67	J/molxK	707.68	Joback Method
cpg	406.86	J/molxK	740.02	Joback Method
dvisc	0.0001722	Paxs	578.30	Joback Method
dvisc	0.0016382	Paxs	338.18	Joback Method
dvisc	0.0009227	Paxs	378.20	Joback Method
dvisc	0.0005801	Paxs	418.22	Joback Method
dvisc	0.0003955	Paxs	458.24	Joback Method
dvisc	0.0002867	Paxs	498.26	Joback Method
dvisc	0.0002181	Paxs	538.28	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	$\ln(P_{vp}) = A + B/(T + C)$
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	$\ln(P_{vp}) = A + B/T + C \cdot \ln(T) + D \cdot T^2$
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

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C999213&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C999213&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure: KDB Vapor Pressure Data:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a> <a href="https://www.therc.org/research/kdb/hcprop/showprop.php?cmpid=1186">https://www.therc.org/research/kdb/hcprop/showprop.php?cmpid=1186</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemed.com/doc/models/crippen_log10ws">https://www.chemed.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>KDB:</b>	<a href="https://www.therc.org/research/kdb/hcprop/showprop.php?cmpid=1186">https://www.therc.org/research/kdb/hcprop/showprop.php?cmpid=1186</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>pvap:</b>	Vapor pressure
<b>rinpol:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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