

# Dipropyl glutarate

<b>Other names:</b>	dipropyl pentanedioate pentanedioic acid, 1,5-dipropyl ester pentanedioic acid, dipropyl ester
<b>Inchi:</b>	InChI=1S/C11H20O4/c1-3-8-14-10(12)6-5-7-11(13)15-9-4-2/h3-9H2,1-2H3
<b>InchiKey:</b>	IXAVSISAEGUDSL-UHFFFAOYSA-N
<b>Formula:</b>	C11H20O4
<b>SMILES:</b>	CCCOC(=O)CCCC(=O)OCCC
<b>Mol. weight [g/mol]:</b>	216.27
<b>CAS:</b>	1724-48-7

## Physical Properties

Property code	Value	Unit	Source
gf	-426.10	kJ/mol	Joback Method
hf	-759.97	kJ/mol	Joback Method
hfus	29.82	kJ/mol	Joback Method
hvap	58.39	kJ/mol	Joback Method
log10ws	-2.15		Crippen Method
logp	2.063		Crippen Method
mcvol	180.730	ml/mol	McGowan Method
pc	2100.34	kPa	Joback Method
rinpol	1436.00		NIST Webbook
rinpol	1439.00		NIST Webbook
rinpol	1436.00		NIST Webbook
rinpol	1439.00		NIST Webbook
rinpol	1439.00		NIST Webbook
rinpol	1440.00		NIST Webbook
rinpol	1438.00		NIST Webbook
tb	603.66	K	Joback Method
tc	782.25	K	Joback Method
tf	358.05	K	Joback Method
vc	0.700	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	465.03	J/molxK	603.66	Joback Method
cpg	478.94	J/molxK	633.43	Joback Method
cpg	492.26	J/molxK	663.19	Joback Method
cpg	505.00	J/molxK	692.96	Joback Method
cpg	517.15	J/molxK	722.72	Joback Method
cpg	528.71	J/molxK	752.49	Joback Method
cpg	539.69	J/molxK	782.25	Joback Method
dvisc	0.0018153	Paxs	358.05	Joback Method
dvisc	0.0009995	Paxs	398.99	Joback Method
dvisc	0.0006149	Paxs	439.92	Joback Method
dvisc	0.0004109	Paxs	480.86	Joback Method
dvisc	0.0002926	Paxs	521.79	Joback Method
dvisc	0.0002188	Paxs	562.73	Joback Method
dvisc	0.0001703	Paxs	603.66	Joback Method
pvap	4.44e-03	kPa	318.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	3.59e-03	kPa	316.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	2.76e-03	kPa	313.30	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	4.78e-03	kPa	319.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	6.09e-03	kPa	322.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids

pvap	6.37e-03	kPa	323.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	7.78e-03	kPa	325.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.01	kPa	328.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.01	kPa	329.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.01	kPa	331.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.01	kPa	333.60	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.02	kPa	336.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids

pvap	0.02	kPa	338.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.03	kPa	341.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.03	kPa	343.60	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.04	kPa	346.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.04	kPa	348.40	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.05	kPa	350.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids
pvap	0.06	kPa	353.50	Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids

# 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=C1724487&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1724487&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Vapor Pressures and Enthalpies of Vaporization of a Series of the Symmetric Linear n-Alkyl Esters of Dicarboxylic Acids:</b>	<a href="https://www.doi.org/10.1021/je100231g">https://www.doi.org/10.1021/je100231g</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

# Legend

<b>cp<sub>g</sub>:</b>	Ideal gas heat capacity
<b>d<sub>visc</sub>:</b>	Dynamic viscosity
<b>g<sub>f</sub>:</b>	Standard Gibbs free energy of formation
<b>h<sub>f</sub>:</b>	Enthalpy of formation at standard conditions
<b>h<sub>fus</sub>:</b>	Enthalpy of fusion at standard conditions
<b>h<sub>vap</sub>:</b>	Enthalpy of vaporization at standard conditions
<b>log<sub>10</sub>ws:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>log<sub>p</sub>:</b>	Octanol/Water partition coefficient
<b>mc<sub>vol</sub>:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>pv<sub>ap</sub>:</b>	Vapor pressure
<b>rin<sub>pol</sub>:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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