

# Dimethylmalonic acid, cis-4-methylcyclohexyl decyl ester

Inchi:	InChI=1S/C22H40O4/c1-5-6-7-8-9-10-11-12-17-25-20(23)22(3,4)21(24)26-19-15-13-18(2)
InchiKey:	FLRGZQGFCSTBNAF-UHFFFAOYSA-N
Formula:	C22H40O4
SMILES:	CCCCCCCCCOC(=O)C(C)(C)C(=O)OC1CCC(C)CC1
Mol. weight [g/mol]:	368.55

## Physical Properties

Property code	Value	Unit	Source
gf	-313.90	kJ/mol	Joback Method
hf	-961.78	kJ/mol	Joback Method
hfus	43.80	kJ/mol	Joback Method
hvap	81.70	kJ/mol	Joback Method
log10ws	-6.28		Crippen Method
logp	5.818		Crippen Method
mvol	324.860	ml/mol	McGowan Method
pc	1077.10	kPa	Joback Method
rinpol	2434.00		NIST Webbook
rinpol	2434.00		NIST Webbook
tb	866.99	K	Joback Method
tc	1068.86	K	Joback Method
tf	487.58	K	Joback Method
vc	1.236	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1093.39	J/molxK	866.99	Joback Method
cpg	1177.33	J/molxK	1035.21	Joback Method
cpg	1163.26	J/molxK	1001.57	Joback Method
cpg	1147.87	J/molxK	967.92	Joback Method
cpg	1131.12	J/molxK	934.28	Joback Method
cpg	1112.97	J/molxK	900.63	Joback Method
cpg	1190.13	J/molxK	1068.86	Joback Method
dvisc	0.0000418	Paxs	866.99	Joback Method

dvisc	0.0000561	Paxs	803.75	Joback Method
dvisc	0.0000791	Paxs	740.52	Joback Method
dvisc	0.0001189	Paxs	677.28	Joback Method
dvisc	0.0001945	Paxs	614.05	Joback Method
dvisc	0.0003562	Paxs	550.81	Joback Method
dvisc	0.0007630	Paxs	487.58	Joback Method

## Sources

<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.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.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>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=U363883&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U363883&amp;Units=SI</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>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>rinpol:</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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