

# 1,2-Cyclobutanedicarboxylic acid, didecyl ester, trans-

Inchi:	InChI=1S/C26H48O4/c1-3-5-7-9-11-13-15-17-21-29-25(27)23-19-20-24(23)26(28)30-22-
InchiKey:	BPFHRPZSWWKRGS-UHFFFAOYSA-N
Formula:	C26H48O4
SMILES:	CCCCCCCCCOC(=O)C1CCC1C(=O)OCCCCCCCCC
Mol. weight [g/mol]:	424.66

## Physical Properties

Property code	Value	Unit	Source
gf	-258.86	kJ/mol	Joback Method
hf	-1023.27	kJ/mol	Joback Method
hfus	65.78	kJ/mol	Joback Method
hvap	91.56	kJ/mol	Joback Method
log10ws	-7.84		Crippen Method
logp	7.380		Crippen Method
mcvol	381.220	ml/mol	McGowan Method
pc	816.33	kPa	Joback Method
tb	953.20	K	Joback Method
tc	1169.26	K	Joback Method
tf	537.28	K	Joback Method
vc	1.488	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1337.17	J/molxK	953.20	Joback Method
cpg	1357.99	J/molxK	989.21	Joback Method
cpg	1377.20	J/molxK	1025.22	Joback Method
cpg	1394.85	J/molxK	1061.23	Joback Method
cpg	1411.02	J/molxK	1097.24	Joback Method
cpg	1425.75	J/molxK	1133.25	Joback Method
cpg	1439.11	J/molxK	1169.26	Joback Method
dvisc	0.0007064	Paxs	537.28	Joback Method
dvisc	0.0003776	Paxs	606.60	Joback Method
dvisc	0.0002295	Paxs	675.92	Joback Method

dvisc	0.0001530	Paxs	745.24	Joback Method
dvisc	0.0001093	Paxs	814.56	Joback Method
dvisc	0.0000823	Paxs	883.88	Joback Method
dvisc	0.0000646	Paxs	953.20	Joback Method

## Sources

<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=B6008118&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=B6008118&amp;Units=SI</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.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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>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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