

# 1,4-Dioxane-2,5-dione, 3,6-dimethyl-

<b>Other names:</b>	(3R,6R)-3,6-dimethyl-1,4-dioxane-2,5-dione (3R-cis)-3,6-dimethyl-1,4-dioxane-2,5-dione 3,6-Dimethyl-1,4-dioxane-2,5-dione 3,6-Dimethyl-2,5-dioxo-1,4-dioxane D-lactide Lactide Propanoic acid, 2-hydroxy-, bimol. cyclic ester dilactide dl-Lactide p-Dioxane-2,5-dione, 3,6-dimethyl-
<b>Inchi:</b>	InChI=1S/C6H8O4/c1-3-5(7)10-4(2)6(8)9-3/h3-4H,1-2H3
<b>InchiKey:</b>	JJTUDXZGHPGLLC-UHFFFAOYSA-N
<b>Formula:</b>	C6H8O4
<b>SMILES:</b>	CC1OC(=O)C(C)OC1=O
<b>Mol. weight [g/mol]:</b>	144.13
<b>CAS:</b>	95-96-5

## Physical Properties

Property code	Value	Unit	Source
chs	-2712.50 ± 1.70	kJ/mol	NIST Webbook
gf	-401.04	kJ/mol	Joback Method
hf	-672.59	kJ/mol	Joback Method
hfs	-792.10 ± 1.70	kJ/mol	NIST Webbook
hfus	16.21	kJ/mol	Determination and Correlation of Solubility Data and Dissolution Thermodynamic Data of L-Lactide in Different Pure Solvents
hvap	46.58	kJ/mol	Joback Method
log10ws	-0.18		Crippen Method
logp	-0.137		Crippen Method
mcvol	99.420	ml/mol	McGowan Method
pc	4056.96	kPa	Joback Method
tb	541.10	K	Joback Method
tc	782.11	K	Joback Method
tf	350.10	K	Joback Method
vc	0.359	m3/kmol	Joback Method

# Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	245.08	J/mol×K	541.10	Joback Method
cpg	259.00	J/mol×K	581.27	Joback Method
cpg	272.40	J/mol×K	621.44	Joback Method
cpg	285.18	J/mol×K	661.61	Joback Method
cpg	297.28	J/mol×K	701.78	Joback Method
cpg	308.62	J/mol×K	741.94	Joback Method
cpg	319.11	J/mol×K	782.11	Joback Method
hfust	24.70	kJ/mol	397.50	NIST Webbook

# Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	415.20	K	1.00	NIST Webbook

# Sources

Crippen Method:	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
Crippen Method:	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
Determination and Correlation of Solubility Data and Dissolution	<a href="https://www.doi.org/10.1021/je301014d">https://www.doi.org/10.1021/je301014d</a>
Joback Methodic Data of L-Lactide in Different Pure Solvents:	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
McGowan Method:	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
NIST Webbook:	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C95965&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C95965&amp;Units=SI</a>

# Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation

<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hfust:</b>	Enthalpy of fusion at a given temperature
<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>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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