

# Carbonic acid, isobutyl 2-pentyl ester

<b>Inchi:</b>	InChI=1S/C10H20O3/c1-5-6-9(4)13-10(11)12-7-8(2)3/h8-9H,5-7H2,1-4H3
<b>InchiKey:</b>	BNBBJRKBAZHRAB-UHFFFAOYSA-N
<b>Formula:</b>	C10H20O3
<b>SMILES:</b>	CCCC(C)OC(=O)OCC(C)C
<b>Mol. weight [g/mol]:</b>	188.26

## Physical Properties

Property code	Value	Unit	Source
gf	-310.48	kJ/mol	Joback Method
hf	-637.31	kJ/mol	Joback Method
hfus	18.59	kJ/mol	Joback Method
hvap	48.64	kJ/mol	Joback Method
log10ws	-2.81		Crippen Method
logp	2.984		Crippen Method
mcvol	165.070	ml/mol	McGowan Method
pc	2197.95	kPa	Joback Method
rinpol	1161.00		NIST Webbook
rinpol	1161.00		NIST Webbook
tb	526.03	K	Joback Method
tc	704.59	K	Joback Method
tf	266.85	K	Joback Method
vc	0.625	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	394.72	J/mol×K	526.03	Joback Method
cpg	462.43	J/mol×K	674.83	Joback Method
cpg	449.98	J/mol×K	645.07	Joback Method
cpg	436.98	J/mol×K	615.31	Joback Method
cpg	423.43	J/mol×K	585.55	Joback Method
cpg	409.35	J/mol×K	555.79	Joback Method
cpg	474.34	J/mol×K	704.59	Joback Method
dvisc	0.0001618	Paxs	526.03	Joback Method

dvisc	0.0002205	Paxs	482.83	Joback Method
dvisc	0.0003192	Paxs	439.64	Joback Method
dvisc	0.0005009	Paxs	396.44	Joback Method
dvisc	0.0008775	Paxs	353.24	Joback Method
dvisc	0.0017975	Paxs	310.05	Joback Method
dvisc	0.0046442	Paxs	266.85	Joback Method

## 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=U357825&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U357825&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>

## 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

Latest version available from:

<https://www.chemeo.com/cid/20-175-5/Carbonic-acid-isobutyl-2-pentyl-ester.pdf>

Generated by Cheméo on 2026-03-14 16:44:46.193769795 +0000 UTC m=+3904377.886839042.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.