Butyric acid hydrazide

Other names:	n-Butyric acid hydrazide
	Butanoic acid, hydrazide
	Butyrylhydrazine
	butyrohydrazide
Inchi:	InChI=1S/C4H10N2O/c1-2-3-4(7)6-5/h2-3,5H2,1H3,(H,6,7)
InchiKey:	FCCCRBDJBTVFSJ-UHFFFAOYSA-N
Formula:	C4H10N2O
SMILES:	CCCC(=O)NN
Mol. weight [g/mol]:	102.14
CAS:	3538-65-6

Physical Properties

Property code	Value	Unit	Source
gf	9.72	kJ/mol	Joback Method
hf	-151.21	kJ/mol	Joback Method
hfus	18.01	kJ/mol	Joback Method
hvap	48.32	kJ/mol	Joback Method
log10ws	-0.89		Crippen Method
logp	-0.224		Crippen Method
mcvol	88.750	ml/mol	McGowan Method
pc	4634.00	kPa	Joback Method
tb	467.49	K	Joback Method
tc	665.92	K	Joback Method
tf	320.69	K	Joback Method
vc	0.330	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	189.41	J/mol×K	467.49	Joback Method
cpg	198.33	J/mol×K	500.56	Joback Method
cpg	206.83	J/mol×K	533.63	Joback Method
cpg	214.91	J/mol×K	566.71	Joback Method
cpg	222.59	J/mol×K	599.78	Joback Method

cpg	229.88	J/mol×K	632.85	Joback Method
cpg	236.79	J/mol×K	665.92	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3538656&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:
https://www.chemeo.com/cid/19-385-4/Butyric-acid-hydrazide.pdf
Generated by Cheméo on 2024-10-12 04:22:58.768490113 +0000 UTC m=+3287841.405459362.
Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.