

Butyric acid, 2-(2,4-dinitrophenyl) hydrazide

Inchi:	InChI=1S/C10H12N4O5/c1-2-3-10(15)12-11-8-5-4-7(13(16)17)6-9(8)14(18)19/h4-6,11H,
InchiKey:	GSBZMZQCPPJDRM-UHFFFAOYSA-N
Formula:	C10H12N4O5
SMILES:	CCCC(=O)NNc1ccc([N+](=O)[O-])cc1[N+](=O)[O-]
Mol. weight [g/mol]:	268.23
CAS:	6561-60-0

Physical Properties

Property code	Value	Unit	Source
gf	247.43	kJ/mol	Joback Method
hf	-63.30	kJ/mol	Joback Method
hfus	49.44	kJ/mol	Joback Method
hvap	94.25	kJ/mol	Joback Method
log10ws	-3.99		Crippen Method
logp	1.746		Crippen Method
mcvol	184.370	ml/mol	McGowan Method
pc	3213.68	kPa	Joback Method
tb	922.73	K	Joback Method
tc	1175.64	K	Joback Method
tf	696.39	K	Joback Method
vc	0.728	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	550.52	J/molxK	922.73	Joback Method
cpg	559.30	J/molxK	964.88	Joback Method
cpg	567.14	J/molxK	1007.03	Joback Method
cpg	574.11	J/molxK	1049.19	Joback Method
cpg	580.28	J/molxK	1091.34	Joback Method
cpg	585.70	J/molxK	1133.49	Joback Method
cpg	590.43	J/molxK	1175.64	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6561600&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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