

Potassium propionate

Other names:	potassium propanoate propanoic acid, potassium salt propionic acid, potassium salt
Inchi:	InChI=1S/C3H6O2.K/c1-2-3(4)5;/h2H2,1H3,(H,4,5);/q;+1/p-1
InchiKey:	BWILYWWHXdGKQA-UHFFFAOYSA-M
Formula:	C3H5KO2
SMILES:	CCC(=O)[O-].[K+]
Mol. weight [g/mol]:	112.17

Physical Properties

Property code	Value	Unit	Source
af	0.1027		Cheméo Relay (1.0)
gf	-191.20	kJ/mol	Cheméo Relay (1.0, beta)
hf	-530.73	kJ/mol	Cheméo Relay (1.0)
hvap	36.30	kJ/mol	Cheméo Relay (1.0)
ie	7.11	eV	Cheméo Relay (1.0)
log10ws	-1.40e-03		Cheméo Relay (1.0)
pc	3200.56	kPa	Cheméo Relay (1.0, beta)
ss	142.40	J/mol×K	NIST Webbook
tb	580.77	K	Cheméo Relay (1.0)
tc	901.35	K	Cheméo Relay (1.0)
tf	636.90	K	Thermal Behavior of Potassium C1-C12 n-Alkanoates and Its Relevance to Fischer Tropsch
tf	638.30 ± 0.10	K	NIST Webbook
tt	638.30 ± 0.10	K	NIST Webbook
tt	638.30 ± 0.10	K	NIST Webbook
vc	0.191	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	129.50	J/mol×K	298.15	NIST Webbook

Sources

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

Thermal Behavior of Potassium C1-C12 <https://www.doi.org/10.1021/je400874d>

n-Alkanoates and Its Relevance to

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C327628&Units=SI>

Legend

af:	Acentric Factor
cps:	Solid phase heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
pc:	Critical Pressure
ss:	Solid phase molar entropy at standard conditions
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume

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