# 3-Methyl-2-thiophenecarboxylic acid

Other names: 2-Thiophenecarboxylic acid, 3-methyl-

3-Methylthiophene-2-carboxylic acid

3-methyl-2-thenoic acid

Methyl 2-thiophenecarboxylate

InChl=1S/C6H6O2S/c1-4-2-3-9-5(4)6(7)8/h2-3H,1H3,(H,7,8)

InchiKey: IFLKEBSJTZGCJG-UHFFFAOYSA-N

Formula: C6H6O2S

SMILES: Cc1ccsc1C(=O)O

Mol. weight [g/mol]: 142.18 CAS: 23806-24-8

### **Physical Properties**

Property code	Value	Unit	Source
hsub	$98.00 \pm 0.40$	kJ/mol	NIST Webbook
log10ws	-1.77		Crippen Method
logp	1.755		Crippen Method
mcvol	99.730	ml/mol	McGowan Method
ripol	2501.00		NIST Webbook
ripol	2501.00		NIST Webbook

## **Temperature Dependent Properties**

Property code	Value	Unit	Temperature [K	] Source
hsubt	96.70 ± 0.40	kJ/mol	323.00	NIST Webbook
pvap	3.14e-04	kPa	322.21	Thermochemical properties of three thiophenecarboxylacid derivatives
pvap	1.02e-04	kPa	312.13	Thermochemical properties of three 2-thiophenecarboxyl acid derivatives

Pyap   1.02e-04   KPa   312.13   Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
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pvap 1.26e-04 kPa 316.22 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 1.64e-04 kPa 316.22 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 1.62e-04 kPa 316.22 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 1.62e-04 kPa 316.22 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 1.59e-04 kPa 316.22 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.09e-04 kPa 318.13 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.09e-04 kPa 318.13 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.05e-04 kPa 318.13 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.04e-04 kPa 318.13 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.04e-04 kPa 318.13 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.04e-04 kPa 318.13 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.64e-04 kPa 320.19 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.64e-04 kPa 320.19 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives  pvap 2.61e-04 kPa 320.19 Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
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þ	vap	2.54e-04	kPa	320.19	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
p	vap	3.23e-04	kPa	322.21	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
þ	vap	3.20e-04	kPa	322.21	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
p	vap	1.04e-04	kPa	312.13	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
p	vap	4.12e-04	kPa	324.14	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
þ	vap	4.07e-04	kPa	324.14	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
þ	vap	4.18e-04	kPa	324.14	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
þ	vap	5.07e-04	kPa	326.18	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
p <sup>,</sup>	vap	5.03e-04	kPa	326.18	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
þ	vap	5.07e-04	kPa	326.18	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
p <sup>1</sup>	vap	6.36e-04	kPa	328.21	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
p	vap	6.30e-04	kPa	328.21	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives

pvap	6.30e-04	kPa	328.21	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	7.98e-04	kPa	330.15	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	7.86e-04	kPa	330.15	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	7.69e-04	kPa	330.15	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	9.84e-04	kPa	332.23	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	9.72e-04	kPa	332.23	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	9.40e-04	kPa	332.23	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	1.19e-03	kPa	334.20	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	1.17e-03	kPa	334.20	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives
pvap	1.15e-03	kPa	334.20	Thermochemical properties of three 2-thiophenecarboxylic acid derivatives

### **Sources**

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C23806248&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen\_log10ws

Thermochemical properties of three 2-thiophenecarboxylic acid derivatives:

https://www.doi.org/10.1016/j.jct.2008.04.013

## Legend

hsub: Enthalpy of sublimation at standard conditions hsubt: Enthalpy of sublimation at a given temperature

log10ws: Log10 of Water solubility in mol/llogp: Octanol/Water partition coefficientmcvol: McGowan's characteristic volume

**pvap:** Vapor pressure

ripol: Polar retention indices

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