2-Methoxythiophene

Other names: Thiophene, 2-methoxy-

Inchi: InChl=1S/C5H6OS/c1-6-5-3-2-4-7-5/h2-4H,1H3

InchiKey: OKEHURCMYKPVFW-UHFFFAOYSA-N

 Formula:
 C5H6OS

 SMILES:
 COc1cccs1

 Mol. weight [g/mol]:
 114.17

 CAS:
 16839-97-7

Physical Properties

Value	Unit	Source
8.02	eV	NIST Webbook
8.14 ± 0.05	eV	NIST Webbook
8.08	eV	NIST Webbook
8.30 ± 0.05	eV	NIST Webbook
8.30	eV	NIST Webbook
8.18	eV	NIST Webbook
-1.35		Crippen Method
1.757		Crippen Method
84.070	ml/mol	McGowan Method
878.00		NIST Webbook
	8.02 8.14 ± 0.05 8.08 8.30 ± 0.05 8.30 8.18 -1.35 1.757 84.070	8.02 eV 8.14 ± 0.05 eV 8.08 eV 8.30 ± 0.05 eV 8.30 eV 8.18 eV -1.35 1.757 84.070 ml/mol

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
pvap	0.13	kPa	m	Thermochemistry of ethoxythiophenes Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase

pvap	0.16	kPa	281.00	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	0.18	kPa	283.00	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	0.23	kPa	285.90	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	0.27	kPa	287.80	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	0.32	kPa	290.70	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase

	2.22		000 75	-	
pvap	0.39	kPa	292.70	Thermochemistry of methoxythiophenes Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase	:
pvap	0.46	kPa	295.70	Thermochemistry of methoxythiophenes Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase	:
pvap	0.54	kPa	297.60	Thermochemistry of methoxythiophenes Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase	:
pvap	0.64	kPa	300.60	Thermochemistry of methoxythiophenes Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase	:
pvap	0.70	kPa	302.60	Thermochemistry of methoxythiophenes Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase	:

pvap	0.87	kPa	305.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	0.99	kPa	307.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	1.15	kPa	310.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	1.34	kPa	312.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	1.30	kPa	312.70	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase

pvap	1.37	kPa	313.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	1.56	kPa	315.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	1.83	kPa	318.60	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	2.20	kPa	321.70	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase
pvap	2.47	kPa	323.70	Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase

Pressure Dependent Properties

Property code Value Unit Pressure [kPa] Source

tbrp 424.70 K 102.00 NIST Webbook

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C16839977&Units=SI

https://www.doi.org/10.1016/j.jct.2013.11.003

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

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Thermochemistry of methoxythiophenes: Measurement of their enthalpies of vaporization and estimation of their enthalpies of formation in the condensed phase:

Legend

ie: Ionization energy

log10ws: Log10 of Water solubility in mol/l logp: Octanol/Water partition coefficient mcvol: McGowan's characteristic volume

pvap: Vapor pressure

rinpol: Non-polar retention indices

tbrp: Boiling point at reduced pressure

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