[(4-Chloro-o-tolyl)oxy]acetic acid

Other names:

(2-Methyl-4-chlorophenoxy)acetic acid
(4-Chloro-2-methylphenoxy)acetic acid
(4-Chloro-o-cresoxy)acetic acid
(4-Chloro-o-toloxy)acetic acid
2,4-MCPA
2-(4-Chloro-2-methylphenoxy)acetic acid
2-Methyl-4-chlorphenoxyessigsaeure
2M-4C
2M-4Ch
2M-4Kh
4K-2M
Acetic acid, (4-chloro-2-methylphenoxy)-
Acetic acid, (4-chloro-o-toloxy)-
Acetic acid, 2-(4-chloro-2-methylphenoxy)-
Acetic acid, [(4-chloro-o-tolyl)oxy]-
Acme MCPA amine 4
Agricorn 500 II
Agritox
Agritox 50
Agroxon
Agroxone
Albar-M
Anicon M
Anicon kombi
Atlas MCPA
B-Selektonon M
BH MCPA
Bordermaster
Brominal M & plus
Campbell's MCPA 25, 50
Cekherbex
Chiptox
Chwastox 30
Cornox-M
Dicopur-M
Dicotex
Dikotes
Dikotex
Dow MCP amine weed killer
Emcepan

Empal
Hedapur M 52
Hedarex M
Hedonal M
Herbicide M
Hormoneste
Hormotuho
Hornotuho
Kilsem
Kilsem4k-2m
Krezone
Kwas 4-chloro-2-metylofenoksyoctowy
Kyselina 4-chlor-2-methylfenoxyoctova
Legumex DB
Leuna M
Leyspray
Linormone
M 40
MCP
MCPA
Mecaphar
Mephanac
Metaxon
Methoxone
Methyl chlorophenoxy acetic acid
Netazol
Okultin M
Phenoxylene 50
Phenoxylene plus
Phenoxylene super
Raphone
Razol dock killer
Rhomenc
Rhomene
Rhonox
Selektonon M
Seppic MMD
Shamrox
Soviet technical herbicide 2M-4C
Trasan
U 46 M-FLUID
Ustinex
Vacate

	Verdone
	Vesakontuho MCPA
	Weed-rhap
	Weedar MCPA
	Weedar mcpa concentrate
	Weedone mcpa ester
	Zelan
Inchi:	InChI=1S/C9H9ClO3/c1-6-4-7(10)2-3-8(6)13-5-9(11)12/h2-4H,5H2,1H3,(H,11,12)
InchiKey:	WHKUVVPPKQRRBV-UHFFFAOYSA-N
Formula:	C9H9ClO3
SMILES:	Cc1cc(Cl)ccc1OCC(=O)O
Mol. weight [g/mol]:	200.62
CAS:	94-74-6

Physical Properties

Property code	Value	Unit	Source
gf	-264.62	kJ/mol	Joback Method
hf	-428.27	kJ/mol	Joback Method
hfus	23.40	kJ/mol	Joback Method
hvap	69.45	kJ/mol	Joback Method
log10ws	-2.23		Aqueous Solubility Prediction Method
logp	2.112		Crippen Method
mcvol	139.460	ml/mol	McGowan Method
pc	3543.08	kPa	Joback Method
tb	647.86	K	Joback Method
tc	854.75	K	Joback Method
tf	393.44 ± 0.20	K	NIST Webbook
tf	392.70 ± 0.20	K	NIST Webbook
vc	0.523	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	323.99	J/mol×K	647.86	Joback Method
cpg	333.23	J/mol×K	682.34	Joback Method
cpg	341.92	J/mol×K	716.82	Joback Method

cpg	350.07	J/mol×K	751.31	Joback Method
cpg	357.70	J/mol×K	785.79	Joback Method
cpg	364.79	J/mol×K	820.27	Joback Method
cpg	371.37	J/mol×K	854.75	Joback Method
dvisc	0.0014442	Pa×s	405.55	Joback Method
dvisc	0.0006838	Pa×s	445.94	Joback Method
dvisc	0.0003666	Pa×s	486.32	Joback Method
dvisc	0.0002162	Pa×s	526.71	Joback Method
dvisc	0.0001375	Pa×s	567.09	Joback Method
dvisc	0.0000929	Pa×s	607.48	Joback Method
dvisc	0.0000659	Pa×s	647.86	Joback Method
hfust	29.98	kJ/mol	392.90	NIST Webbook

Sources

Aqueous Solubility Prediction Method: http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C94746&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Joback Method: https://en.wikipedia.org/wiki/Joback_method

Legend

cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
hfust: Enthalpy of fusion at a given temperature
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