2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester

Other names: Methacrylic acid, 2-(diethylamino)ethyl ester
«beta»-(Diethylamino)ethyl methacrylate
«beta»-(N,N-Diethylamino)ethyl methacrylate
Daktose B
Diethylaminoethyl methacrylate
Ethanol, 2-(diethylamino)-, methacrylate (ester)
N,N-Diethylaminoethyl methacrylate
2-(N,N-Diethylamino)ethyl methacrylate
2-Diethylaminoethyl methacrylate
2-Diethylaminoethylester kyseliny methakrylove
NSC 14490

Inchi: InChI=1S/C10H19NO2/c1-5-11(6-2)7-8-13-10(12)9(3)4/h3,5-8H2,1-2,4H3

InchiKey: SJIXRGNQPBQWMK-UHFFFAOYSA-N

Formula: C10H19NO2

SMILES: C=C(C)C(=O)OCCN(CC)CC

Mol. weight [g/mol]: 185.26

CAS: 105-16-8

Physical Properties

Property code	Value	Unit	Source
gf	-10.53	kJ/mol	Joback Method
hf	-311.36	kJ/mol	Joback Method
hfus	24.87	kJ/mol	Joback Method
hvap	48.46	kJ/mol	Joback Method
log10ws	-1.29		Crippen Method
logp	1.447		Crippen Method
mcvol	164.880	ml/mol	McGowan Method
pc	2295.91	kPa	Joback Method
tb	513.49	K	Joback Method
tc	690.21	K	Joback Method
tf	207.50 ± 0.10	K	NIST Webbook
vc	0.620	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	438.16	J/mol×K	631.30	Joback Method
cpg	450.23	J/mol×K	660.76	Joback Method
cpg	383.87	J/mol×K	513.49	Joback Method
cpg	398.38	J/mol×K	542.94	Joback Method
cpg	412.25	J/mol×K	572.40	Joback Method
cpg	425.51	J/mol×K	601.85	Joback Method
cpg	461.73	J/mol×K	690.21	Joback Method
hfust	13.08	kJ/mol	207.50	NIST Webbook
sfust	63.04	J/mol×K	207.50	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C105168&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
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
sfust: Entropy of fusion at a given temperature
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume