

2-Ethylhexyl methacrylate

Other names:	Octyl methacrylate Methacrylic acid 2-ethylhexyl ester 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester 2-Ethyl-1-hexyl methacrylate 2-Ethylhexyl methacryate
Inchi:	InChI=1S/C12H22O2/c1-5-7-8-11(6-2)9-14-12(13)10(3)4/h11H,3,5-9H2,1-2,4H3
InchiKey:	WDQMWEYDKDCEHT-UHFFFAOYSA-N
Formula:	C12H22O2
SMILES:	C=C(C)C(=O)OCC(CC)CCCC
Mol. weight [g/mol]:	198.30
CAS:	688-84-6

Physical Properties

Property code	Value	Unit	Source
gf	-106.91	kJ/mol	Joback Method
hf	-425.45	kJ/mol	Joback Method
hfus	23.51	kJ/mol	Joback Method
hvap	50.48	kJ/mol	Joback Method
log10ws	-3.32		Crippen Method
logp	3.322		Crippen Method
mcvol	183.080	ml/mol	McGowan Method
pc	1942.37	kPa	Joback Method
rinpol	1295.00		NIST Webbook
rinpol	1297.00		NIST Webbook
ripol	1546.00		NIST Webbook
ripol	1540.00		NIST Webbook
tb	546.37	K	Joback Method
tc	725.06	K	Joback Method
tf	230.30	K	NIST Webbook
tf	230.30	K	NIST Webbook
vc	0.708	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	503.34	J/mol×K	665.50	Joback Method
cpg	516.46	J/mol×K	695.28	Joback Method
cpg	444.43	J/mol×K	546.37	Joback Method
cpg	460.15	J/mol×K	576.15	Joback Method
cpg	475.20	J/mol×K	605.93	Joback Method
cpg	489.59	J/mol×K	635.71	Joback Method
cpg	528.96	J/mol×K	725.06	Joback Method
cpl	386.00	J/mol×K	298.15	NIST Webbook
cpl	386.20	J/mol×K	298.15	NIST Webbook
hfust	24.09	kJ/mol	230.30	NIST Webbook
sfust	104.60	J/mol×K	230.30	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	393.20	K	2.40	NIST Webbook

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C688846&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
ripol:	Non-polar retention indices
ripol:	Polar retention indices
sfust:	Entropy of fusion at a given temperature
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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