2,2-dimethylpropane-1,3-diyl diacrylate

Other names: neopentyl glycol diacrylate
Inchi: InChI=1S/C11H16O4/c1-5-9(12)14-7-11(3,4)8-15-10(13)6-2/h5-6H,1-2,7-8H2,3-4H3
InchiKey: MXFQRSUWYYSPOC-UHFFFAOYSA-N
Formula: C11H16O4
SMILES: C=CC(=O)OCC(C)(C)COC(=O)C=C
Mol. weight [g/mol]: 212.25

Physical Properties

Property code	Value	Unit	Source
af	0.6618		Cheméo Relay (1.0)
hf	-699.64	kJ/mol	Cheméo Relay (1.0)
hfus	19.85	kJ/mol	Joback Method
hvap	64.66	kJ/mol	Cheméo Relay (1.0)
ie	10.05	eV	Cheméo Relay (1.0)
log10ws	-2.52		Cheméo Relay (1.0)
logp	1.471		Crippen Method
mcvol	172.130	ml/mol	McGowan Method
pc	2313.61	kPa	Joback Method
tb	514.99	K	Cheméo Relay (1.0)
tc	686.14	K	Cheméo Relay (1.0)
tf	326.17	K	Cheméo Relay (1.0)
vc	0.616	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	426.39	J/mol×K	593.79	Joback Method
cpg	496.02	J/mol×K	788.14	Joback Method
cpg	486.11	J/mol×K	755.75	Joback Method
cpg	475.54	J/mol×K	723.36	Joback Method
cpg	464.31	J/mol×K	690.97	Joback Method
cpg	452.38	J/mol×K	658.57	Joback Method
cpg	439.75	J/mol×K	626.18	Joback Method
dvisc	0.0004122	Pa×s	475.37	Joback Method

dvisc	0.0001643	Pa×s	593.79	Joback Method
dvisc	0.0002137	Pa×s	554.32	Joback Method
dvisc	0.0002894	Pa×s	514.84	Joback Method
dvisc	0.0019044	Pa×s	356.95	Joback Method
dvisc	0.0006259	Pa×s	435.90	Joback Method
dvisc	0.0010329	Pa×s	396.42	Joback Method

Sources

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

Phase behavior measurement for the binary mixture of CO2 + neopentyl glycol diacrylate and CO2 + neopentyl glycol dimethacrylate systems at high pressure: https://www.doi.org/10.1016/j.fluid.2010.09.003

Joback Method: https://en.wikipedia.org/wiki/Joback_method

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

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

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

Legend

af: Acentric Factor
cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
hvap: Enthalpy of vaporization at standard conditions
ie: Ionization energy
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

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.