

1H,1H-Heptafluorobutyl acrylate

Other names:	Heptafluorobutyl acrylate 2-Propenoic acid, 2,2,3,3,4,4,4-heptafluorobutyl ester 2,2,3,3,4,4,4-heptafluorobutyl acrylate
Inchi:	InChI=1S/C7H5F7O2/c1-2-4(15)16-3-5(8,9)6(10,11)7(12,13)14/h2H,1,3H2
InchiKey:	PLXOUIVCSUBZIX-UHFFFAOYSA-N
Formula:	C7H5F7O2
SMILES:	C=CC(=O)OCC(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]:	254.10
CAS:	424-64-6

Physical Properties

Property code	Value	Unit	Source
gf	-1493.17	kJ/mol	Joback Method
hf	-1706.20	kJ/mol	Joback Method
hfus	14.71	kJ/mol	Joback Method
hvap	30.06	kJ/mol	Joback Method
log10ws	-2.76		Crippen Method
logp	2.549		Crippen Method
mcvol	125.020	ml/mol	McGowan Method
pc	2356.49	kPa	Joback Method
tb	417.73	K	Joback Method
tc	568.69	K	Joback Method
tf	250.44	K	Joback Method
vc	0.525	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	287.52	J/molxK	417.73	Joback Method
cpg	297.98	J/molxK	442.89	Joback Method
cpg	307.80	J/molxK	468.05	Joback Method
cpg	317.00	J/molxK	493.21	Joback Method
cpg	325.61	J/molxK	518.37	Joback Method
cpg	333.66	J/molxK	543.53	Joback Method

cpg

341.18

J/mol×K

568.69

Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	330.60	K	4.00	NIST Webbook

Sources

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=C424646&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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