

1-Propene, 3,3'-oxybis-

Other names:	(CH2=CHCH2)2O 3,3'-Oxybis(1-propene) Allyl ether Diallyl ether Ether, diallyl UN 2360
Inchi:	InChI=1S/C6H10O/c1-3-5-7-6-4-2/h3-4H,1-2,5-6H2
InchiKey:	ATVJXMYDOSMEPO-UHFFFAOYSA-N
Formula:	C6H10O
SMILES:	C=CCOCC=C
Mol. weight [g/mol]:	98.14
CAS:	557-40-4

Physical Properties

Property code	Value	Unit	Source
gf	70.32	kJ/mol	Joback Method
hf	-48.53	kJ/mol	Joback Method
hfus	9.92	kJ/mol	Joback Method
hvap	30.02	kJ/mol	Joback Method
log10ws	-1.13		Crippen Method
logp	1.375		Crippen Method
mcvol	92.670	ml/mol	McGowan Method
pc	3352.86	kPa	Joback Method
rinpol	678.00		NIST Webbook
tb	352.46	K	Joback Method
tc	523.88	K	Joback Method
tf	176.09	K	Joback Method
vc	0.351	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	155.09	J/mol×K	352.46	Joback Method
cpg	164.02	J/mol×K	381.03	Joback Method

cpg	172.64	J/mol×K	409.60	Joback Method
cpg	180.96	J/mol×K	438.17	Joback Method
cpg	188.97	J/mol×K	466.74	Joback Method
cpg	196.69	J/mol×K	495.31	Joback Method
cpg	204.12	J/mol×K	523.88	Joback Method
dvisc	0.0023888	Pa×s	176.09	Joback Method
dvisc	0.0011809	Pa×s	205.49	Joback Method
dvisc	0.0006964	Pa×s	234.88	Joback Method
dvisc	0.0004619	Pa×s	264.28	Joback Method
dvisc	0.0003326	Pa×s	293.67	Joback Method
dvisc	0.0002542	Pa×s	323.07	Joback Method
dvisc	0.0002032	Pa×s	352.46	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.53027e+01
Coeff. B	-3.46102e+03
Coeff. C	-4.32180e+01
Temperature range (K), min.	273.72
Temperature range (K), max.	389.62

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C557404&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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

dvisc:	Dynamic viscosity
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
pvap:	Vapor pressure
rlnpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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