13-Docosen-1-ol, (Z)-

Other names: (Z)-docos-13-enol
DOCOSEN-(13)-OL-(1)
cis-13-docosen-1-ol
Inchi: InChI=1S/C22H44O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23/h9-
InchiKey: CFOQKXQWGLAKSK-KTKRTIGZSA-N
Formula: C22H44O
SMILES: CCCCCCCCC=CCCCCCCCCCCCCO
Mol. weight [g/mol]: 324.58
CAS: 629-98-1

Physical Properties

Property code	Value	Unit	Source
gf	77.76	kJ/mol	Joback Method
hf	-532.42	kJ/mol	Joback Method
hfus	57.03	kJ/mol	Joback Method
hvap	81.20	kJ/mol	Joback Method
log10ws	-8.15		Crippen Method
logp	7.577		Crippen Method
mcvol	322.410	ml/mol	McGowan Method
pc	985.16	kPa	Joback Method
rinpol	2466.50		NIST Webbook
rinpol	2466.50		NIST Webbook
tb	799.10	K	Joback Method
tc	978.43	K	Joback Method
tf	393.44	K	Joback Method
vc	1.266	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1025.43	J/mol×K	799.10	Joback Method
cpg	1045.28	J/mol×K	828.99	Joback Method
cpg	1064.20	J/mol×K	858.88	Joback Method
cpg	1082.23	J/mol×K	888.76	Joback Method

cpg	1099.43	J/mol×K	918.65	Joback Method
cpg	1115.85	J/mol×K	948.54	Joback Method
cpg	1131.53	J/mol×K	978.43	Joback Method
dvisc	0.0022519	Pa×s	393.44	Joback Method
dvisc	0.0004926	Pa×s	461.05	Joback Method
dvisc	0.0001589	Pa×s	528.66	Joback Method
dvisc	0.0000663	Pa×s	596.27	Joback Method
dvisc	0.0000330	Pa×s	663.88	Joback Method
dvisc	0.0000187	Pa×s	731.49	Joback Method
dvisc	0.0000117	Pa×s	799.10	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.62563e+01
Coeff. B	-6.56216e+03
Coeff. C	-1.37182e+02
Temperature range (K), min.	548.12
Temperature range (K), max.	736.75

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C629981&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume