

Octadecyl octyl ether

Inchi:	InChI=1S/C26H54O/c1-3-5-7-9-11-12-13-14-15-16-17-18-19-20-22-24-26-27-25-23-21-1
InchiKey:	ULIVNEOXSTXXFP-UHFFFAOYSA-N
Formula:	C26H54O
SMILES:	CCCCCCCCCCCCCCCCCCOCCCCCCCC
Mol. weight [g/mol]:	382.71

Physical Properties

Property code	Value	Unit	Source
gf	63.04	kJ/mol	Joback Method
hf	-712.19	kJ/mol	Joback Method
hfus	64.28	kJ/mol	Joback Method
hvap	75.88	kJ/mol	Joback Method
log10ws	-9.79		Crippen Method
logp	9.625		Crippen Method
mcvol	383.070	ml/mol	McGowan Method
pc	718.37	kPa	Joback Method
rinsol	2656.00		NIST Webbook
tb	816.70	K	Joback Method
tc	1000.19	K	Joback Method
tf	405.01	K	Joback Method
vc	1.510	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1252.62	J/molxK	816.70	Joback Method
cpg	1361.00	J/molxK	969.61	Joback Method
cpg	1341.63	J/molxK	939.02	Joback Method
cpg	1321.15	J/molxK	908.44	Joback Method
cpg	1299.51	J/molxK	877.86	Joback Method
cpg	1276.69	J/molxK	847.28	Joback Method
cpg	1379.30	J/molxK	1000.19	Joback Method
dvisc	0.0000327	Paxs	816.70	Joback Method
dvisc	0.0000452	Paxs	748.09	Joback Method

dvisc	0.0000667	Paxs	679.47	Joback Method
dvisc	0.0001074	Paxs	610.86	Joback Method
dvisc	0.0001951	Paxs	542.24	Joback Method
dvisc	0.0004212	Paxs	473.62	Joback Method
dvisc	0.0011802	Paxs	405.01	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=U406387&Units=SI

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

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