

Tridecane, 7-ethyl

Inchi:	InChI=1S/C15H32/c1-4-7-9-11-13-15(6-3)14-12-10-8-5-2/h15H,4-14H2,1-3H3
InchiKey:	MUMTUILLCMYPIJ-UHFFFAOYSA-N
Formula:	C15H32
SMILES:	CCCCCCC(CC)CCCCC
Mol. weight [g/mol]:	212.41

Physical Properties

Property code	Value	Unit	Source
gf	72.98	kJ/mol	Joback Method
hf	-358.21	kJ/mol	Joback Method
hfus	31.08	kJ/mol	Joback Method
hvap	48.60	kJ/mol	Joback Method
log10ws	-5.86		Crippen Method
logp	5.953		Crippen Method
mcvol	222.210	ml/mol	McGowan Method
pc	1423.99	kPa	Joback Method
rinpol	1420.00		NIST Webbook
tb	542.16	K	Joback Method
tc	703.93	K	Joback Method
tf	243.81	K	Joback Method
vc	0.870	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	558.22	J/molxK	542.16	Joback Method
cpg	577.24	J/molxK	569.12	Joback Method
cpg	595.52	J/molxK	596.08	Joback Method
cpg	613.07	J/molxK	623.04	Joback Method
cpg	629.92	J/molxK	650.00	Joback Method
cpg	646.08	J/molxK	676.97	Joback Method
cpg	661.59	J/molxK	703.93	Joback Method
dvisc	0.0083877	Paxs	243.81	Joback Method
dvisc	0.0024681	Paxs	293.53	Joback Method

dvisc	0.0010352	Paxs	343.26	Joback Method
dvisc	0.0005409	Paxs	392.99	Joback Method
dvisc	0.0003270	Paxs	442.71	Joback Method
dvisc	0.0002189	Paxs	492.43	Joback Method
dvisc	0.0001577	Paxs	542.16	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=R9937&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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