4-Tridecene, (E)

Other names:	trans-4-tridecene
	(E)-4-Tridecene
Inchi:	InChI=1S/C13H26/c1-3-5-7-9-11-13-12-10-8-6-4-2/h7,9H,3-6,8,10-13H2,1-2H3/b9-7+
InchiKey:	UJZLNVCZGZKIHR-VQHVLOKHSA-N
Formula:	C13H26
SMILES:	CCCC=CCCCCCCCC
Mol. weight [g/mol]:	182.35
CAS:	41446-55-3

Physical Properties

Property code	Value	Unit	Source
gf	138.80	kJ/mol	Joback Method
hf	-194.43	kJ/mol	Joback Method
hfus	29.63	kJ/mol	Joback Method
hvap	44.49	kJ/mol	Joback Method
log10ws	-5.12		Crippen Method
logp	5.093		Crippen Method
mcvol	189.730	ml/mol	McGowan Method
pc	1716.03	kPa	Joback Method
rinpol	1289.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1281.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1279.90		NIST Webbook
ripol	1337.00		NIST Webbook
ripol	1337.00		NIST Webbook
ripol	1337.00		NIST Webbook
ripol	1323.00		NIST Webbook
ripol	1328.00		NIST Webbook
ripol	1328.00		NIST Webbook
ripol	1330.00		NIST Webbook
ripol	1324.00		NIST Webbook
ripol	1330.00		NIST Webbook
ripol	1330.00		NIST Webbook

ripol	1331.00		NIST Webbook
ripol	1338.00		NIST Webbook
ripol	1337.00		NIST Webbook
ripol	1337.00		NIST Webbook
ripol	1338.00		NIST Webbook
ripol	1339.00		NIST Webbook
ripol	1332.00		NIST Webbook
ripol	1332.00		NIST Webbook
ripol	1333.00		NIST Webbook
ripol	1333.00		NIST Webbook
ripol	1334.00		NIST Webbook
ripol	1334.00		NIST Webbook
ripol	1322.40		NIST Webbook
ripol	1329.60		NIST Webbook
ripol	1323.70		NIST Webbook
ripol	1329.80		NIST Webbook
ripol	1319.10		NIST Webbook
ripol	1323.10		NIST Webbook
ripol	1328.10		NIST Webbook
ripol	1328.40		NIST Webbook
ripol	1320.80		NIST Webbook
ripol	1339.00		NIST Webbook
ripol	1330.20		NIST Webbook
ripol	1324.20		NIST Webbook
tb	501.00	K	Joback Method
tc	667.97	K	Joback Method
tf	231.19	K	Joback Method
vc	0.744	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	439.01	J/mol×K	501.00	Joback Method
cpg	456.28	J/mol×K	528.83	Joback Method
cpg	472.83	J/mol×K	556.66	Joback Method
cpg	488.69	J/mol×K	584.48	Joback Method
cpg	503.87	J/mol×K	612.31	Joback Method
cpg	518.42	J/mol×K	640.14	Joback Method
cpg	532.34	J/mol×K	667.97	Joback Method
dvisc	0.0056599	Pa×s	231.19	Joback Method
dvisc	0.0019529	Pa×s	276.16	Joback Method

dvisc	0.0009078	Pa×s	321.13	Joback Method
dvisc	0.0005093	Pa×s	366.10	Joback Method
dvisc	0.0003243	Pa×s	411.06	Joback Method
dvisc	0.0002257	Pa×s	456.03	Joback Method
dvisc	0.0001677	Pa×s	501.00	Joback Method

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=C41446553&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume