3-Tridecene, (Z)

Other names: (3Z)-3-Tridecene
cis-3-Tridecene
(Z)-3-Tridecene
Inchi: InChI=1S/C13H26/c1-3-5-7-9-11-13-12-10-8-6-4-2/h5,7H,3-4,6,8-13H2,1-2H3/b7-5-
InchiKey: OMBXNSHDJUALCV-ALCCZGGFSA-N
Formula: C13H26
SMILES: CCC=CCCCCCCCCC
Mol. weight [g/mol]: 182.35
CAS: 41446-53-1

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	1294.00		NIST Webbook
rinpol	1284.00		NIST Webbook
rinpol	1284.00		NIST Webbook
rinpol	1284.00		NIST Webbook
rinpol	1283.50		NIST Webbook
rinpol	1284.00		NIST Webbook
rinpol	1286.00		NIST Webbook
rinpol	1285.00		NIST Webbook
ripol	1356.00		NIST Webbook
ripol	1346.00		NIST Webbook
ripol	1347.00		NIST Webbook
ripol	1348.00		NIST Webbook
ripol	1349.00		NIST Webbook
ripol	1350.00		NIST Webbook
ripol	1351.00		NIST Webbook
ripol	1333.40		NIST Webbook
ripol	1355.00		NIST Webbook

ripol	1334.20		NIST Webbook
ripol	1341.20		NIST Webbook
ripol	1353.00		NIST Webbook
ripol	1332.70		NIST Webbook
ripol	1340.80		NIST Webbook
ripol	1341.80		NIST Webbook
ripol	1330.70		NIST Webbook
ripol	1334.50		NIST Webbook
ripol	1342.50		NIST Webbook
ripol	1352.00		NIST Webbook
ripol	1353.00		NIST Webbook
ripol	1355.00		NIST Webbook
ripol	1356.00		NIST Webbook
ripol	1352.00		NIST Webbook
ripol	1352.00		NIST Webbook
ripol	1343.00		NIST Webbook
ripol	1342.00		NIST Webbook
ripol	1341.00		NIST Webbook
ripol	1334.00		NIST Webbook
ripol	1342.00		NIST Webbook
ripol	1340.00		NIST Webbook
ripol	1333.00		NIST Webbook
ripol	1340.50		NIST Webbook
ripol	1328.90		NIST Webbook
ripol	1341.00		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	518.42	J/mol×K	640.14	Joback Method
cpg	503.87	J/mol×K	612.31	Joback Method
cpg	488.69	J/mol×K	584.48	Joback Method
cpg	472.83	J/mol×K	556.66	Joback Method
cpg	456.28	J/mol×K	528.83	Joback Method
cpg	532.34	J/mol×K	667.97	Joback Method
dvisc	0.0001677	Pa×s	501.00	Joback Method

dvisc	0.0002257	Pa×s	456.03	Joback Method
dvisc	0.0003243	Pa×s	411.06	Joback Method
dvisc	0.0005093	Pa×s	366.10	Joback Method
dvisc	0.0009078	Pa×s	321.13	Joback Method
dvisc	0.0019529	Pa×s	276.16	Joback Method
dvisc	0.0056599	Pa×s	231.19	Joback Method

Sources

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=C41446531&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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