2-Tridecene, (E)

Other names: (2E)-2-Tridecene
trans-2-Tridecene
(E)-2-Tridecene
Inchi: InChI=1S/C13H26/c1-3-5-7-9-11-13-12-10-8-6-4-2/h3,5H,4,6-13H2,1-2H3/b5-3+
InchiKey: XWVHBWQEYOROBE-HWKANZROSA-N
Formula: C13H26
SMILES: CC=CCCCCCCCCCC
Mol. weight [g/mol]: 182.35
CAS: 41446-58-6

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	1297.00		NIST Webbook
rinpol	1297.00		NIST Webbook
rinpol	1305.00		NIST Webbook
rinpol	1301.00		NIST Webbook
rinpol	1297.00		NIST Webbook
rinpol	1297.00		NIST Webbook
rinpol	1297.70		NIST Webbook
rinpol	1302.00		NIST Webbook
rinpol	1297.00		NIST Webbook
rinpol	1297.00		NIST Webbook
ripol	1360.00		NIST Webbook
ripol	1356.00		NIST Webbook
ripol	1358.00		NIST Webbook
ripol	1348.00		NIST Webbook
ripol	1357.00		NIST Webbook
ripol	1358.00		NIST Webbook
ripol	1357.00		NIST Webbook

ripol	1365.00		NIST Webbook
ripol	1365.00		NIST Webbook
ripol	1365.00		NIST Webbook
ripol	1365.00		NIST Webbook
ripol	1366.00		NIST Webbook
ripol	1355.00		NIST Webbook
ripol	1360.00		NIST Webbook
ripol	1361.00		NIST Webbook
ripol	1348.00		NIST Webbook
ripol	1362.00		NIST Webbook
ripol	1362.00		NIST Webbook
ripol	1348.00		NIST Webbook
ripol	1357.90		NIST Webbook
ripol	1349.00		NIST Webbook
ripol	1358.10		NIST Webbook
ripol	1343.30		NIST Webbook
ripol	1347.50		NIST Webbook
ripol	1355.00		NIST Webbook
ripol	1355.90		NIST Webbook
ripol	1344.10		NIST Webbook
ripol	1348.40		NIST Webbook
ripol	1357.20		NIST Webbook
ripol	1365.00		NIST Webbook
ripol	1365.00		NIST Webbook
ripol	1365.00		NIST Webbook
ripol	1366.00		NIST Webbook
ripol	1350.40		NIST Webbook
ripol	1356.00		NIST Webbook
ripol	1354.90		NIST Webbook
ripol	1366.00		NIST Webbook
ripol	1362.00		NIST Webbook
ripol	1358.10		NIST Webbook
ripol	1344.10		NIST Webbook
ripol	1353.10		NIST Webbook
ripol	1350.40		NIST Webbook
ripol	1357.00		NIST Webbook
ripol	1361.00		NIST Webbook
ripol	1365.00		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	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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C41446586&Units=SI
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

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