

# 1-Decene

<b>Other names:</b>	1-C10H20 1-n-Decene DECYLENE Dec-1-ene Decene-1 Gulftene 10 Linealene 10 N-1-DECENE NSC 62122 Neodene 10 «alpha»-Decene Â«alphaÂ»-Decene
<b>Inchi:</b>	InChI=1S/C10H20/c1-3-5-7-9-10-8-6-4-2/h3H,1,4-10H2,2H3
<b>InchiKey:</b>	AFFLGGQVNFXP EV-UHFFFAOYSA-N
<b>Formula:</b>	C10H20
<b>SMILES:</b>	C=CCCCCCCC
<b>Mol. weight [g/mol]:</b>	140.27
<b>CAS:</b>	872-05-9

## Physical Properties

Property code	Value	Unit	Source
af	0.4910		KDB
aigt	508.15	K	KDB
chl	-6619.60 ± 1.80	kJ/mol	NIST Webbook
fpc	326.48	K	KDB
gf	121.10	kJ/mol	KDB
hf	-123.40	kJ/mol	NIST Webbook
hf	-124.60	kJ/mol	NIST Webbook
hf	-124.20	kJ/mol	KDB
hfl	-173.80 ± 1.90	kJ/mol	NIST Webbook
hfus	20.38	kJ/mol	Joback Method
hvap	50.44	kJ/mol	NIST Webbook
hvap	50.43 ± 0.20	kJ/mol	NIST Webbook
hvap	50.40 ± 0.20	kJ/mol	NIST Webbook
hvap	50.50	kJ/mol	NIST Webbook
ie	9.48	eV	NIST Webbook
ie	9.42 ± 0.01	eV	NIST Webbook

ie	9.59 ± 0.01	eV	NIST Webbook
ie	9.42 ± 0.01	eV	NIST Webbook
log10ws	-5.51		Estimated Solubility Method
log10ws	-5.51		Aqueous Solubility Prediction Method
logp	3.923		Crippen Method
mcvol	147.460	ml/mol	McGowan Method
nfpaf	%!d(float64=2)		KDB
pc	2220.00 ± 100.00	kPa	NIST Webbook
pc	2220.00	kPa	KDB
rhoc	238.45 ± 14.03	kg/m3	NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	989.00		NIST Webbook
rinpol	989.00		NIST Webbook
rinpol	988.60		NIST Webbook
rinpol	990.00		NIST Webbook
rinpol	989.00		NIST Webbook
rinpol	988.00		NIST Webbook
rinpol	989.00		NIST Webbook
rinpol	982.00		NIST Webbook
rinpol	983.00		NIST Webbook
rinpol	982.00		NIST Webbook
rinpol	990.00		NIST Webbook
rinpol	989.20		NIST Webbook
rinpol	990.10		NIST Webbook
rinpol	982.70		NIST Webbook
rinpol	982.20		NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	988.00		NIST Webbook
rinpol	990.00		NIST Webbook
rinpol	992.00		NIST Webbook
rinpol	988.00		NIST Webbook
rinpol	988.00		NIST Webbook
rinpol	992.50		NIST Webbook
rinpol	993.00		NIST Webbook
rinpol	992.00		NIST Webbook
rinpol	989.00		NIST Webbook
rinpol	993.00		NIST Webbook
rinpol	993.00		NIST Webbook
rinpol	989.20		NIST Webbook
rinpol	989.50		NIST Webbook
rinpol	990.70		NIST Webbook
rinpol	985.00		NIST Webbook
rinpol	989.20		NIST Webbook

rinpol	989.50	NIST Webbook
rinpol	990.70	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	988.74	NIST Webbook
rinpol	988.81	NIST Webbook
rinpol	988.83	NIST Webbook
rinpol	991.63	NIST Webbook
rinpol	991.76	NIST Webbook
rinpol	991.73	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	991.00	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	997.00	NIST Webbook
rinpol	989.00	NIST Webbook
rinpol	989.00	NIST Webbook
rinpol	989.00	NIST Webbook
rinpol	991.00	NIST Webbook
rinpol	991.00	NIST Webbook
rinpol	992.00	NIST Webbook
rinpol	992.00	NIST Webbook
rinpol	989.00	NIST Webbook
rinpol	989.00	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	988.80	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	997.00	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	987.00	NIST Webbook
rinpol	985.00	NIST Webbook
rinpol	990.00	NIST Webbook
rinpol	991.00	NIST Webbook
rinpol	982.00	NIST Webbook
rinpol	988.00	NIST Webbook
rinpol	157.60	NIST Webbook
rinpol	153.90	NIST Webbook
rinpol	985.10	NIST Webbook
rinpol	990.00	NIST Webbook
rinpol	989.00	NIST Webbook
rinpol	982.00	NIST Webbook
rinpol	985.00	NIST Webbook
rinpol	986.00	NIST Webbook
rinpol	982.00	NIST Webbook

ripol	1052.00		NIST Webbook
ripol	1048.00		NIST Webbook
ripol	1050.00		NIST Webbook
ripol	1046.00		NIST Webbook
ripol	1047.00		NIST Webbook
ripol	1046.00		NIST Webbook
ripol	1051.70		NIST Webbook
ripol	1055.30		NIST Webbook
ripol	1048.50		NIST Webbook
ripol	1049.80		NIST Webbook
ripol	1051.70		NIST Webbook
ripol	1055.30		NIST Webbook
ripol	1048.50		NIST Webbook
ripol	1049.80		NIST Webbook
ripol	1047.00		NIST Webbook
ripol	1061.00		NIST Webbook
ripol	1020.00		NIST Webbook
ripol	1054.00		NIST Webbook
ripol	1043.00		NIST Webbook
ripol	1054.00		NIST Webbook
ripol	1039.00		NIST Webbook
ripol	1055.00		NIST Webbook
ripol	1035.00		NIST Webbook
sl	425.01	J/molxK	NIST Webbook
tb	443.60	K	KDB
tc	617.00	K	KDB
tc	617.00 ± 2.00	K	NIST Webbook
tf	206.90	K	KDB
tf	207.06	K	Aqueous Solubility Prediction Method
tt	206.89 ± 0.05	K	NIST Webbook
tt	206.88 ± 0.06	K	NIST Webbook
tt	206.47 ± 0.20	K	NIST Webbook
tt	206.89 ± 0.06	K	NIST Webbook
vc	0.584	m3/kmol	KDB
vc	0.584	m3/kmol	NIST Webbook
zc	0.2527230		KDB
zra	0.25		KDB

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
---------------	-------	------	-----------------	--------

cpg	354.26	J/molxK	535.29	Joback Method
cpg	327.80	J/molxK	480.09	Joback Method
cpg	313.75	J/molxK	452.48	Joback Method
cpg	299.13	J/molxK	424.88	Joback Method
cpg	366.70	J/molxK	562.90	Joback Method
cpg	378.63	J/molxK	590.50	Joback Method
cpg	341.30	J/molxK	507.69	Joback Method
cpl	300.83	J/molxK	298.15	NIST Webbook
dvisc	0.0020999	Paxs	238.06	Joback Method
dvisc	0.0010678	Paxs	275.43	Joback Method
dvisc	0.0006382	Paxs	312.79	Joback Method
dvisc	0.0004257	Paxs	350.15	Joback Method
dvisc	0.0003070	Paxs	387.52	Joback Method
dvisc	0.0053123	Paxs	200.70	Joback Method
dvisc	0.0002345	Paxs	424.88	Joback Method
hfust	13.81	kJ/mol	206.90	NIST Webbook
hfust	7.95	kJ/mol	198.30	NIST Webbook
hfust	13.81	kJ/mol	206.90	NIST Webbook
hvapt	45.10	kJ/mol	402.50	NIST Webbook
hvapt	43.80	kJ/mol	414.00	NIST Webbook
hvapt	38.66	kJ/mol	443.70	KDB
rfi	1.42139		293.15	Excess Volume of the 1-Propanol + 1-Alkene Systems in Terms of an Equation of State with Association
rfi	1.42140		293.15	Isobaric Vapor-Liquid Equilibria of Hexane + 1-Decene and Octane + 1-Decene Mixtures
rhol	741.00	kg/m3	293.00	KDB
sfust	66.73	J/molxK	206.90	NIST Webbook
sfust	40.09	J/molxK	198.30	NIST Webbook
srf	0.02	N/m	298.20	KDB

## Correlations

Information	Value
Property code	pvap









<b>sfust:</b>	Entropy of fusion at a given temperature
<b>sl:</b>	Liquid phase molar entropy at standard conditions
<b>srf:</b>	Surface Tension
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>tt:</b>	Triple Point Temperature
<b>vc:</b>	Critical Volume
<b>zc:</b>	Critical Compressibility
<b>zra:</b>	Rackett Parameter

Latest version available from:

<https://www.chemeo.com/cid/40-071-8/1-Decene.pdf>

Generated by Cheméo on 2024-04-25 20:24:41.475652263 +0000 UTC m=+16365930.396229578.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.