(3a«alpha»,4«beta»,7«beta»,7a«alpha»)-octahydro

Other names: 4,7-methano-1H-indene, octahydro-, (3a.alpha.,4.beta.,7.beta.,7a.alpha.)-
4,7-methanoindan, hexahydro-, exo-
JP-10
Tricyclo[5.2.1.0
exo-3,4,8,9-tetrahydrodicyclopentadiene
exo-5,6-trimethylenenorbornane
exo-octahydro-4,7-methano-1H-indene
exo-tetrahydrobicyclopentadiene
exo-tetrahydrodicyclopentadiene
exo-tricyclo[5.2.1.02,6]decane
exo-trimethylenenorbornane
jp10

Inchi: InChI=1S/C14H24/c1-11-8-9-12(2,10-11)14(4)7-5-6-13(11,14)3/h5-10H2,1-4H3/t11-,12+,

InchiKey: HFDBLHGEKMWGRC-LVEBTZEWSA-N

Formula: C10H16

SMILES: CC12CCC(C)(C1)C1(C)CCCC21C

Mol. weight [g/mol]: 136.23

CAS: 2825-82-3

Physical Properties

Property code	Value	Unit	Source
gf	207.48	kJ/mol	Joback Method
hf	-79.43	kJ/mol	Joback Method
hfus	0.20	kJ/mol	Joback Method
hvap	41.76	kJ/mol	Joback Method
ie	9.35 ± 0.05	eV	NIST Webbook
log10ws	-4.40		Crippen Method
logp	4.393		Crippen Method
mcvol	175.540	ml/mol	McGowan Method
pc	2500.00	kPa	Joback Method
tb	540.50	K	Joback Method
tc	777.93	K	Joback Method
tf	389.20	K	Joback Method
vc	0.673	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	489.65	J/mol×K	580.07	Joback Method
cpg	510.26	J/mol×K	619.64	Joback Method
cpg	466.97	J/mol×K	540.50	Joback Method
cpg	583.64	J/mol×K	777.93	Joback Method
cpg	565.47	J/mol×K	738.36	Joback Method
cpg	547.57	J/mol×K	698.78	Joback Method
cpg	529.37	J/mol×K	659.21	Joback Method
cpl	236.60	J/mol×K	298.15	NIST Webbook
cpl	213.87	J/mol×K	298.15	NIST Webbook
cpl	236.50	J/mol×K	298.15	NIST Webbook
hfust	1.20	kJ/mol	183.20	NIST Webbook
rhol	927.90	kg/m3	303.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes
rhol	920.11	kg/m3	313.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes
rhol	924.02	kg/m3	308.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes
rhol	927.94	kg/m3	303.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes

rhol	931.84	kg/m3	298.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes
rhol	935.72	kg/m3	293.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes
rhol	916.18	kg/m3	318.15	Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2825823&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Excess Molar Volume along with Viscosity and Refractive Index for Binary Systems of Tricyclo[5.2.1.0(2.6)]decane with Five Cycloalkanes:	https://www.doi.org/10.1021/je400529k
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy

log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rhol:	Liquid Density
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume