

2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl-, (2S)-

Other names:
(2S)-

2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl-,
(2S,4aR)-(-)-
Isolongifoline

2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl-

2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl-,
(2S-cis)-
(-)-Isolongifoline

Isolongipholene

(2S)-1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl-2H-2,4a-methanonaphthalene

Inchi: InChI=1S/C15H24/c1-13(2)8-5-6-12-14(3,4)11-7-9-15(12,13)10-11/h6,11H,5,7-10H2,1-4H

InchiKey: CQUAYTJDLQBXCQ-UHFFFAOYSA-N

Formula: C15H24

SMILES: CC1(C)C2=CCCC(C)(C)C23CCC1C3

Mol. weight [g/mol]: 204.35

CAS: 1135-66-6

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|--------|----------------|
| gf | 229.62 | kJ/mol | Joback Method |
| hf | -75.16 | kJ/mol | Joback Method |
| hfus | 7.82 | kJ/mol | Joback Method |
| hvap | 46.26 | kJ/mol | Joback Method |
| log10ws | -4.67 | | Crippen Method |
| logp | 4.559 | | Crippen Method |
| mcvol | 185.330 | ml/mol | McGowan Method |
| pc | 2278.41 | kPa | Joback Method |
| rinpol | 1430.00 | | NIST Webbook |
| rinpol | 1391.10 | | NIST Webbook |
| rinpol | 1409.00 | | NIST Webbook |
| rinpol | 1357.90 | | NIST Webbook |
| rinpol | 1372.80 | | NIST Webbook |
| rinpol | 1385.00 | | NIST Webbook |
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| rinpol | 1386.00 | | NIST Webbook |
| rinpol | 1394.00 | | NIST Webbook |
| rinpol | 1390.00 | | NIST Webbook |
| ripol | 1608.00 | | NIST Webbook |
| tb | 571.55 | K | Joback Method |
| tc | 806.48 | K | Joback Method |
| tf | 386.33 | K | Joback Method |
| vc | 0.710 | m ³ /kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|---------|-----------------|---------------|
| cpg | 501.53 | J/mol×K | 571.55 | Joback Method |
| cpg | 523.86 | J/mol×K | 610.71 | Joback Method |
| cpg | 544.56 | J/mol×K | 649.86 | Joback Method |
| cpg | 564.09 | J/mol×K | 689.02 | Joback Method |
| cpg | 582.88 | J/mol×K | 728.17 | Joback Method |
| cpg | 601.40 | J/mol×K | 767.33 | Joback Method |
| cpg | 620.08 | J/mol×K | 806.48 | Joback Method |

Sources

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C1135666&Units=SI>

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>
Crippen Method: https://www.cheméo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method

Legend

cpg: Ideal gas heat capacity
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
ripol: Non-polar retention indices
ripol: Polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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