# Ethanol, 2-[(1-methylethyl)amino]-

| | |
|---|---|
| **Other names:** | (N-Hydroxyethyl)isopropylamine |
| | 2-isopropylaminoethanol |
| | Ethanol, 2-(isopropylamino)- |
| | IPE |
| | Isopropylaminoethanol |
| | Monoisopropylaminoethanol |
| | N-Isopropylaminoethanol |
| | N-Isopropylethanolamine |
| | N-ethyl-2-hydroxy-1-propanamine |
| | NSC 1090 |
| | PAE |
| **Inchi:** | InChI=1S/C5H13NO/c1-5(2)6-3-4-7/h5-7H,3-4H2,1-2H3 |
| **InchiKey:** | RILLZYSZSDGYGV-UHFFFAOYSA-N |
| **Formula:** | C5H13NO |
| **SMILES:** | CC(C)NCCO |
| **Mol. weight [g/mol]:** | 103.16 |
| **CAS:** | 109-56-8 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -58.65 | kJ/mol | Joback Method |
| hf | -250.57 | kJ/mol | Joback Method |
| hfus | 14.37 | kJ/mol | Joback Method |
| hvap | 49.45 | kJ/mol | Joback Method |
| log10ws | -0.48 | | Crippen Method |
| logp | -0.023 | | Crippen Method |
| mcvol | 97.160 | ml/mol | McGowan Method |
| pc | 3980.54 | kPa | Joback Method |
| tb | 455.71 | K | Joback Method |
| tc | 625.21 | K | Joback Method |
| tf | 289.00 ± 0.60 | K | NIST Webbook |
| vc | 0.363 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 209.69 | J/mol×K | 455.71 | Joback Method |
| cpg | 219.00 | J/mol×K | 483.96 | Joback Method |
| cpg | 227.94 | J/mol×K | 512.21 | Joback Method |
| cpg | 236.52 | J/mol×K | 540.46 | Joback Method |
| cpg | 244.75 | J/mol×K | 568.71 | Joback Method |
| cpg | 252.64 | J/mol×K | 596.96 | Joback Method |
| cpg | 260.20 | J/mol×K | 625.21 | Joback Method |

# Sources

| | |
|---|---|
| **Solubility of Carbon Dioxide in Aqueous Solutions of Three Secondary Amines: 2-(Butylamino)ethanol, 2-(Isopropylamino)ethanol, and 2-(Ethylamino)ethanol Secondary Alkanolamine Solutions:** | https://www.doi.org/10.1021/acs.jced.7b00364 |
| **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=C109568&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# 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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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