

DL-Alanine, N-DL-alanyl-

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| Other names: | Alanine, N-DL-alanyl-, DL-DL-Ala-DL-Ala DL-Alanyl-DL-alanine N-DL-Alanyl-DL-alanine |
| Inchi: | InChI=1S/C6H12N2O3/c1-3(7)5(9)8-4(2)6(10)11/h3-4H,7H2,1-2H3,(H,8,9)(H,10,11) |
| InchiKey: | DEFJQIDDEAULHB-UHFFFAOYSA-N |
| Formula: | C6H12N2O3 |
| SMILES: | CC(N)C(=O)NC(C)C(=O)O |
| Mol. weight [g/mol]: | 160.17 |
| CAS: | 2867-20-1 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|-----------------|----------------------|----------------|
| chs | -3267.50 ± 1.80 | kJ/mol | NIST Webbook |
| gf | -244.06 | kJ/mol | Joback Method |
| hf | -467.86 | kJ/mol | Joback Method |
| hfs | -807.30 ± 1.90 | kJ/mol | NIST Webbook |
| hfus | 21.83 | kJ/mol | Joback Method |
| hvap | 75.42 | kJ/mol | Joback Method |
| log10ws | -0.06 | | Crippen Method |
| logp | -1.077 | | Crippen Method |
| mcvol | 124.370 | ml/mol | McGowan Method |
| pc | 4504.30 | kPa | Joback Method |
| tb | 658.42 | K | Joback Method |
| tc | 855.69 | K | Joback Method |
| tf | 423.98 | K | Joback Method |
| vc | 0.455 | m ³ /kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|---------|-----------------|---------------|
| cpg | 331.27 | J/mol×K | 658.42 | Joback Method |
| cpg | 340.11 | J/mol×K | 691.30 | Joback Method |
| cpg | 348.42 | J/mol×K | 724.18 | Joback Method |

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|-------|--------|---------|--------|---------------|
| cpg | 356.22 | J/mol×K | 757.06 | Joback Method |
| cpg | 363.53 | J/mol×K | 789.94 | Joback Method |
| cpg | 370.36 | J/mol×K | 822.82 | Joback Method |
| cpg | 376.72 | J/mol×K | 855.69 | Joback Method |
| cps | 189.00 | J/mol×K | 298.00 | NIST Webbook |
| hfust | 33.20 | kJ/mol | 483.20 | NIST Webbook |

Sources

| | |
|------------------------|---|
| NIST Webbook: | http://webbook.nist.gov/cgi/cbook.cgi?ID=C2867201&Units=SI |
| Crippen Method: | http://pubs.acs.org/doi/abs/10.1021/ci9903071 |
| 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

| | |
|-----------------|--|
| chs: | Standard solid enthalpy of combustion |
| cpg: | Ideal gas heat capacity |
| cps: | Solid phase heat capacity |
| gf: | Standard Gibbs free energy of formation |
| hf: | Enthalpy of formation at standard conditions |
| hfs: | Solid phase 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 |
| 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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