# Heptafluorobutanamide, N-heptyl-N-octyl-

**Inchi:** InChI=1S/C19H32F7NO/c1-3-5-7-9-11-13-15-27(14-12-10-8-6-4-2)16(28)17(20,21)18(22
**InchiKey:** FOZMLBKFOAORCN-UHFFFAOYSA-N
**Formula:** C19H32F7NO
**SMILES:** CCCCCCCCN(CCCCCCC)C(=O)C(F)(F)C(F)(F)C(F)(F)F
**Mol. weight [g/mol]:** 423.45

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1264.19 | kJ/mol | Joback Method |
| hf | -1879.56 | kJ/mol | Joback Method |
| hfus | 48.90 | kJ/mol | Joback Method |
| hvap | 57.07 | kJ/mol | Joback Method |
| log10ws | -7.41 | | Crippen Method |
| logp | 6.979 | | Crippen Method |
| mcvol | 302.510 | ml/mol | McGowan Method |
| pc | 953.19 | kPa | Joback Method |
| rinpol | 1822.00 | | NIST Webbook |
| tb | 685.63 | K | Joback Method |
| tc | 842.63 | K | Joback Method |
| tf | 397.68 | K | Joback Method |
| vc | 1.216 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 918.31 | J/mol×K | 685.63 | Joback Method |
| cpg | 935.88 | J/mol×K | 711.80 | Joback Method |
| cpg | 952.53 | J/mol×K | 737.96 | Joback Method |
| cpg | 968.32 | J/mol×K | 764.13 | Joback Method |
| cpg | 983.30 | J/mol×K | 790.29 | Joback Method |
| cpg | 997.52 | J/mol×K | 816.46 | Joback Method |
| cpg | 1011.03 | J/mol×K | 842.63 | Joback Method |

# Sources

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|---|---|
| **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=U308275&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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|---|---|
| **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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |