# 2-Butene, 1,4-dibromo-, (E)-

| | |
|---|---|
| **Other names:** | (2E)-1,4-Dibromo-2-butene |
| | (E)-1,4-Dibromo-2-butene |
| | (E)-1,4-dibromobut-2-ene |
| | 1,4-Dibromo-2-butene, E- |
| | 1,4-trans-Dibromobutene-2 |
| | 2-Butene, 1,4-dibromo-, (2E)- |
| | 2-Butene, 1,4-dibromo-, trans- |
| | trans-1,4-Dibromo-2-butene |
| | trans-1,4-Dibromobut-2-ene |
| **Inchi:** | InChI=1S/C4H6Br2/c5-3-1-2-4-6/h1-2H,3-4H2/b2-1+ |
| **InchiKey:** | RMXLHIUHKIVPAB-OWOJBTEDSA-N |
| **Formula:** | C4H6Br2 |
| **SMILES:** | BrCC=CCBr |
| **Mol. weight [g/mol]:** | 213.90 |
| **CAS:** | 821-06-7 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 91.66 | kJ/mol | Joback Method |
| hf | 43.99 | kJ/mol | Joback Method |
| hfus | 16.89 | kJ/mol | Joback Method |
| hvap | 37.33 | kJ/mol | Joback Method |
| log10ws | -2.21 | | Crippen Method |
| logp | 2.332 | | Crippen Method |
| mcvol | 97.920 | ml/mol | McGowan Method |
| pc | 5015.69 | kPa | Joback Method |
| tb | 478.20 | K | NIST Webbook |
| tc | 644.74 | K | Joback Method |
| tf | 249.36 | K | Joback Method |
| vc | 0.363 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| cpg | 141.76 | J/mol×K | 427.40 | Joback Method |
| cpg | 148.87 | J/mol×K | 463.62 | Joback Method |
| cpg | 155.43 | J/mol×K | 499.85 | Joback Method |
| cpg | 161.48 | J/mol×K | 536.07 | Joback Method |
| cpg | 167.07 | J/mol×K | 572.29 | Joback Method |
| cpg | 172.24 | J/mol×K | 608.51 | Joback Method |
| cpg | 177.04 | J/mol×K | 644.74 | Joback Method |
| dvisc | 0.0028790 | Pa×s | 249.36 | Joback Method |
| dvisc | 0.0017018 | Pa×s | 279.03 | Joback Method |
| dvisc | 0.0011129 | Pa×s | 308.71 | Joback Method |
| dvisc | 0.0007841 | Pa×s | 338.38 | Joback Method |
| dvisc | 0.0005845 | Pa×s | 368.05 | Joback Method |
| dvisc | 0.0004552 | Pa×s | 397.73 | Joback Method |
| dvisc | 0.0003671 | Pa×s | 427.40 | Joback Method |

# Correlations

| Information | Value |
|---|---|
| Property code | pvap |
| Equation | ln(Pvp) = A + B/(T + C) |
| Coeff. A | 1.45037e+01 |
| Coeff. B | -4.00042e+03 |
| Coeff. C | -7.35200e+01 |
| Temperature range (K), min. | 354.92 |
| Temperature range (K), max. | 508.72 |

# Sources

| | |
|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C821067&Units=SI |
| **The Yaws Handbook of Vapor Pressure:** | https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **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 |
| **pvap:** | Vapor pressure |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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