

Boron tribromide

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| Other names: | TRIBROMO BORANE TRONA |
| Inchi: | InChI=1S/BBr3/c2-1(3)4 |
| InchiKey: | ILAHWRKJUDSMFH-UHFFFAOYSA-N |
| Formula: | BBr3 |
| SMILES: | BrB(Br)Br |
| Mol. weight [g/mol]: | 250.52 |
| CAS: | 10294-33-4 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|----------------|---------|----------------|
| dm | 0.00 | debye | KDB |
| gf | -231.20 | kJ/mol | KDB |
| hf | -204.30 | kJ/mol | KDB |
| ie | 10.51 ± 0.02 | eV | NIST Webbook |
| log10ws | -0.37 | | Crippen Method |
| logp | 2.156 | | Crippen Method |
| rhoc | 899.38 ± 20.04 | kg/m3 | NIST Webbook |
| tb | 364.00 | K | KDB |
| tc | 581.00 | K | KDB |
| tc | 573.15 ± 2.50 | K | NIST Webbook |
| tf | 226.15 ± 1.50 | K | NIST Webbook |
| tf | 228.00 | K | KDB |
| vc | 0.272 | m3/kmol | KDB |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|---------|-------|-----------------|--------|
| rho1 | 2643.00 | kg/m3 | 291.00 | KDB |

Correlations

| Information | Value |
|-----------------------------|-------------------------------|
| Property code | pvap |
| Equation | $\ln(P_{vp}) = A + B/(T + C)$ |
| Coeff. A | 1.31446e+01 |
| Coeff. B | -2.56646e+03 |
| Coeff. C | -6.31400e+01 |
| Temperature range (K), min. | 228.15 |
| Temperature range (K), max. | 364.15 |

Sources

| | |
|--------------------------------------|---|
| NIST Webbook: | http://webbook.nist.gov/cgi/cbook.cgi?ID=C10294334&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/ci9903071 |
| Crippen Method: | https://www.chemeo.com/doc/models/crippen_log10ws |
| KDB: | https://www.cheric.org/files/research/kdb/mol/mol1892.mol |

Legend

| | |
|-----------------|--|
| dm: | Dipole Moment |
| gf: | Standard Gibbs free energy of formation |
| hf: | Enthalpy of formation at standard conditions |
| ie: | Ionization energy |
| log10ws: | Log10 of Water solubility in mol/l |
| logp: | Octanol/Water partition coefficient |
| pvap: | Vapor pressure |
| rhoc: | Critical density |
| rhoL: | Liquid Density |
| tb: | Normal Boiling Point Temperature |
| tc: | Critical Temperature |
| tf: | Normal melting (fusion) point |
| vc: | Critical Volume |

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