

# Aniline hydrochloride

|                      |                                                   |
|----------------------|---------------------------------------------------|
| Other names:         | Benzenamine, hydrochloride<br>anilinium chloride  |
| Inchi:               | InChI=1S/C6H7N.ClH/c7-6-4-2-1-3-5-6;/h1-5H,7H2;1H |
| InchiKey:            | MMCPOSMTGQNKG-UHFFFAOYSA-N                        |
| Formula:             | C6H7N.ClH                                         |
| SMILES:              | Cl.Nc1ccccc1                                      |
| Mol. weight [g/mol]: | 129.59                                            |
| CAS:                 | 142-04-1                                          |

## Physical Properties

| Property code | Value  | Unit | Source       |
|---------------|--------|------|--------------|
| tb            | 518.20 | K    | NIST Webbook |

## Temperature Dependent Properties

| Property code | Value | Unit   | Temperature [K] | Source                                                                                                                                       |
|---------------|-------|--------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| hsubt         | 87.50 | kJ/mol | 427.00          | NIST Webbook                                                                                                                                 |
| pvap          | 59.00 | kPa    | 503.15          | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap          | 27.25 | kPa    | 480.15          | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |

|      |       |     |        |                                                                                                                                              |
|------|-------|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| pvap | 31.25 | kPa | 484.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 34.25 | kPa | 488.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 41.25 | kPa | 493.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 44.25 | kPa | 494.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 45.25 | kPa | 495.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 46.25 | kPa | 496.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |

|      |       |     |        |                                                                                                                                              |
|------|-------|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| pvap | 49.25 | kPa | 498.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 51.25 | kPa | 499.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 52.75 | kPa | 500.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 54.75 | kPa | 501.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 56.25 | kPa | 502.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 23.25 | kPa | 475.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |

|      |       |     |        |                                                                                                                                              |  |
|------|-------|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------|--|
| pvap | 62.25 | kPa | 505.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |  |
| pvap | 71.25 | kPa | 509.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |  |
| pvap | 79.25 | kPa | 512.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |  |
| pvap | 83.75 | kPa | 513.65 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |  |
| pvap | 91.25 | kPa | 516.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |  |
| pvap | 97.25 | kPa | 517.65 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |  |

|      |        |     |        |                                                                                                                                              |
|------|--------|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| pvap | 101.50 | kPa | 519.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 105.25 | kPa | 519.65 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 112.25 | kPa | 521.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 118.25 | kPa | 522.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 131.25 | kPa | 524.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 136.25 | kPa | 525.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |

|      |        |     |        |                                                                                                                                              |
|------|--------|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| pvap | 141.25 | kPa | 526.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |
| pvap | 148.25 | kPa | 527.15 | Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system |

## Sources

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C142041&Units=SI>

Determination of saturated vapour pressure of aniline hydrochloride and vapour-liquid equilibrium of the water- aniline hydrochloride system  
Experimental Measurement and Modeling of Aniline Hydrochloride Solubility in Water, Methanol, Ethanol, 1- Propanol and Their Mixed Systems:

<https://www.doi.org/10.1016/j.fluid.2015.12.053>

<https://www.doi.org/10.1021/je201047m>

## Legend

**hsubt:** Enthalpy of sublimation at a given temperature

**pvap:** Vapor pressure

**tb:** Normal Boiling Point Temperature

Latest version available from:

<https://www.chemeo.com/cid/32-153-6/Aniline-hydrochloride.pdf>

Generated by Cheméo on 2025-12-08 21:04:24.597174061 +0000 UTC m=+4976062.127214716.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.