

# R 717 (Ammoniak)



| Temperatur<br>[°C] | Druck<br>[bar] | Dichte<br>[kg/m³] |           | Enthalpie<br>[kJ/kg] |           | Entropie<br>[J/kg*K] |           |
|--------------------|----------------|-------------------|-----------|----------------------|-----------|----------------------|-----------|
|                    |                | flüssig           | gasförmig | flüssig              | gasförmig | flüssig              | gasförmig |
| -70,000            | 0,10941        | 724,72            | 0,11101   | 32,343               | 1498,7    | 0,16220              | 7,3803    |
| -69,000            | 0,11768        | 723,63            | 0,11886   | 36,591               | 1500,6    | 0,18306              | 7,3541    |
| -68,000            | 0,12647        | 722,53            | 0,12715   | 40,846               | 1502,4    | 0,20384              | 7,3281    |
| -67,000            | 0,13581        | 721,43            | 0,13593   | 45,106               | 1504,2    | 0,22455              | 7,3025    |
| -66,000            | 0,14572        | 720,33            | 0,14520   | 49,372               | 1506,1    | 0,24519              | 7,2772    |
| -65,000            | 0,15624        | 719,22            | 0,15499   | 53,645               | 1507,9    | 0,26576              | 7,2522    |
| -64,000            | 0,16739        | 718,11            | 0,16532   | 57,922               | 1509,7    | 0,28625              | 7,2276    |
| -63,000            | 0,17921        | 716,99            | 0,17621   | 62,206               | 1511,5    | 0,30668              | 7,2032    |
| -62,000            | 0,19171        | 715,87            | 0,18769   | 66,496               | 1513,3    | 0,32703              | 7,1791    |
| -61,000            | 0,20495        | 714,75            | 0,19978   | 70,792               | 1515,1    | 0,34732              | 7,1553    |
| -60,000            | 0,21893        | 713,62            | 0,21251   | 75,093               | 1516,9    | 0,36754              | 7,1318    |
| -59,000            | 0,23371        | 712,48            | 0,22589   | 79,400               | 1518,7    | 0,38769              | 7,1085    |
| -58,000            | 0,24932        | 711,35            | 0,23997   | 83,714               | 1520,4    | 0,40778              | 7,0856    |
| -57,000            | 0,26579        | 710,20            | 0,25475   | 88,033               | 1522,2    | 0,42779              | 7,0629    |
| -56,000            | 0,28315        | 709,06            | 0,27028   | 92,357               | 1524,0    | 0,44774              | 7,0405    |
| -55,000            | 0,30145        | 707,90            | 0,28657   | 96,688               | 1525,7    | 0,46763              | 7,0183    |
| -54,000            | 0,32072        | 706,75            | 0,30366   | 101,02               | 1527,5    | 0,48745              | 6,9964    |
| -53,000            | 0,34101        | 705,59            | 0,32157   | 105,37               | 1529,2    | 0,50720              | 6,9747    |
| -52,000            | 0,36235        | 704,43            | 0,34034   | 109,71               | 1530,9    | 0,52690              | 6,9533    |
| -51,000            | 0,38479        | 703,26            | 0,35999   | 114,07               | 1532,6    | 0,54652              | 6,9321    |
| -50,000            | 0,40836        | 702,09            | 0,38055   | 118,43               | 1534,3    | 0,56609              | 6,9112    |
| -49,000            | 0,43312        | 700,91            | 0,40207   | 122,79               | 1536,0    | 0,58559              | 6,8905    |
| -48,000            | 0,45911        | 699,73            | 0,42456   | 127,16               | 1537,7    | 0,60503              | 6,8700    |
| -47,000            | 0,48637        | 698,55            | 0,44806   | 131,54               | 1539,4    | 0,62440              | 6,8498    |
| -46,000            | 0,51495        | 697,36            | 0,47261   | 135,92               | 1541,1    | 0,64371              | 6,8298    |
| -45,000            | 0,54489        | 696,17            | 0,49824   | 140,31               | 1542,7    | 0,66297              | 6,8100    |
| -44,000            | 0,57626        | 694,97            | 0,52498   | 144,70               | 1544,4    | 0,68216              | 6,7904    |
| -43,000            | 0,60909        | 693,77            | 0,55287   | 149,10               | 1546,0    | 0,70129              | 6,7710    |
| -42,000            | 0,64345        | 692,57            | 0,58194   | 153,50               | 1547,7    | 0,72036              | 6,7518    |
| -41,000            | 0,67937        | 691,36            | 0,61224   | 157,91               | 1549,3    | 0,73937              | 6,7329    |
| -40,000            | 0,71692        | 690,15            | 0,64380   | 162,32               | 1550,9    | 0,75832              | 6,7141    |
| -39,000            | 0,75615        | 688,94            | 0,67665   | 166,74               | 1552,5    | 0,77721              | 6,6955    |
| -38,000            | 0,79711        | 687,72            | 0,71085   | 171,17               | 1554,1    | 0,79604              | 6,6772    |
| -37,000            | 0,83986        | 686,49            | 0,74641   | 175,60               | 1555,7    | 0,81482              | 6,6590    |
| -36,000            | 0,88447        | 685,27            | 0,78340   | 180,03               | 1557,3    | 0,83353              | 6,6410    |
| -35,000            | 0,93098        | 684,04            | 0,82184   | 184,48               | 1558,8    | 0,85219              | 6,6232    |
| -34,000            | 0,97946        | 682,80            | 0,86178   | 188,92               | 1560,4    | 0,87079              | 6,6055    |
| -33,000            | 1,0300         | 681,57            | 0,90326   | 193,37               | 1561,9    | 0,88933              | 6,5880    |
| -32,000            | 1,0826         | 680,32            | 0,94633   | 197,83               | 1563,4    | 0,90782              | 6,5708    |
| -31,000            | 1,1373         | 679,08            | 0,99102   | 202,29               | 1565,0    | 0,92625              | 6,5536    |
| -30,000            | 1,1943         | 677,83            | 1,0374    | 206,76               | 1566,5    | 0,94462              | 6,5367    |
| -29,000            | 1,2535         | 676,58            | 1,0855    | 211,23               | 1568,0    | 0,96294              | 6,5199    |
| -28,000            | 1,3151         | 675,32            | 1,1353    | 215,71               | 1569,4    | 0,98120              | 6,5033    |
| -27,000            | 1,3792         | 674,06            | 1,1870    | 220,19               | 1570,9    | 0,99941              | 6,4868    |
| -26,000            | 1,4457         | 672,80            | 1,2405    | 224,68               | 1572,4    | 1,0176               | 6,4705    |
| -25,000            | 1,5147         | 671,53            | 1,2959    | 229,17               | 1573,8    | 1,0357               | 6,4543    |

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# R 717 (Ammoniak)



|         |        |        |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|--------|--------|
| -24,000 | 1,5864 | 670,26 | 1,3533 | 233,66 | 1575,2 | 1,0537 | 6,4383 |
| -23,000 | 1,6608 | 668,98 | 1,4126 | 238,17 | 1576,7 | 1,0717 | 6,4224 |
| -22,000 | 1,7379 | 667,71 | 1,4740 | 242,67 | 1578,1 | 1,0896 | 6,4067 |
| -21,000 | 1,8179 | 666,42 | 1,5376 | 247,19 | 1579,5 | 1,1075 | 6,3911 |
| -20,000 | 1,9008 | 665,14 | 1,6033 | 251,71 | 1580,8 | 1,1253 | 6,3757 |
| -19,000 | 1,9867 | 663,85 | 1,6711 | 256,23 | 1582,2 | 1,1431 | 6,3604 |
| -18,000 | 2,0756 | 662,55 | 1,7413 | 260,76 | 1583,5 | 1,1609 | 6,3452 |
| -17,000 | 2,1677 | 661,25 | 1,8138 | 265,29 | 1584,9 | 1,1785 | 6,3302 |
| -16,000 | 2,2630 | 659,95 | 1,8886 | 269,83 | 1586,2 | 1,1962 | 6,3153 |
| -15,000 | 2,3617 | 658,65 | 1,9659 | 274,37 | 1587,5 | 1,2137 | 6,3005 |
| -14,000 | 2,4637 | 657,34 | 2,0456 | 278,92 | 1588,8 | 1,2313 | 6,2859 |
| -13,000 | 2,5691 | 656,02 | 2,1279 | 283,47 | 1590,1 | 1,2487 | 6,2713 |
| -12,000 | 2,6782 | 654,70 | 2,2128 | 288,03 | 1591,4 | 1,2662 | 6,2569 |
| -11,000 | 2,7908 | 653,38 | 2,3003 | 292,60 | 1592,6 | 1,2835 | 6,2426 |
| -10,000 | 2,9071 | 652,06 | 2,3906 | 297,16 | 1593,9 | 1,3009 | 6,2285 |
| -9,0000 | 3,0273 | 650,73 | 2,4837 | 301,74 | 1595,1 | 1,3181 | 6,2144 |
| -8,0000 | 3,1513 | 649,39 | 2,5795 | 306,32 | 1596,3 | 1,3354 | 6,2004 |
| -7,0000 | 3,2793 | 648,06 | 2,6783 | 310,90 | 1597,5 | 1,3526 | 6,1866 |
| -6,0000 | 3,4114 | 646,71 | 2,7801 | 315,49 | 1598,7 | 1,3697 | 6,1729 |
| -5,0000 | 3,5476 | 645,37 | 2,8849 | 320,09 | 1599,8 | 1,3868 | 6,1592 |
| -4,0000 | 3,6880 | 644,02 | 2,9928 | 324,69 | 1601,0 | 1,4038 | 6,1457 |
| -3,0000 | 3,8327 | 642,66 | 3,1038 | 329,30 | 1602,1 | 1,4209 | 6,1323 |
| -2,0000 | 3,9819 | 641,30 | 3,2181 | 333,91 | 1603,2 | 1,4378 | 6,1190 |
| -1,0000 | 4,1356 | 639,94 | 3,3357 | 338,53 | 1604,3 | 1,4547 | 6,1058 |
| 0,00000 | 4,2938 | 638,57 | 3,4567 | 343,15 | 1605,4 | 1,4716 | 6,0926 |
| 1,0000  | 4,4568 | 637,20 | 3,5811 | 347,78 | 1606,5 | 1,4884 | 6,0796 |
| 2,0000  | 4,6246 | 635,82 | 3,7090 | 352,42 | 1607,5 | 1,5052 | 6,0667 |
| 3,0000  | 4,7972 | 634,44 | 3,8405 | 357,06 | 1608,5 | 1,5219 | 6,0538 |
| 4,0000  | 4,9748 | 633,06 | 3,9757 | 361,71 | 1609,6 | 1,5386 | 6,0410 |
| 5,0000  | 5,1575 | 631,66 | 4,1146 | 366,36 | 1610,5 | 1,5553 | 6,0284 |
| 6,0000  | 5,3453 | 630,27 | 4,2573 | 371,02 | 1611,5 | 1,5719 | 6,0158 |
| 7,0000  | 5,5385 | 628,87 | 4,4039 | 375,69 | 1612,5 | 1,5885 | 6,0033 |
| 8,0000  | 5,7370 | 627,46 | 4,5545 | 380,36 | 1613,4 | 1,6050 | 5,9908 |
| 9,0000  | 5,9409 | 626,05 | 4,7092 | 385,04 | 1614,4 | 1,6215 | 5,9785 |
| 10,000  | 6,1505 | 624,64 | 4,8679 | 389,72 | 1615,3 | 1,6380 | 5,9662 |
| 11,000  | 6,3657 | 623,22 | 5,0309 | 394,41 | 1616,2 | 1,6544 | 5,9540 |
| 12,000  | 6,5866 | 621,79 | 5,1983 | 399,11 | 1617,0 | 1,6708 | 5,9419 |
| 13,000  | 6,8135 | 620,36 | 5,3700 | 403,81 | 1617,9 | 1,6871 | 5,9299 |
| 14,000  | 7,0463 | 618,93 | 5,5461 | 408,52 | 1618,7 | 1,7034 | 5,9179 |
| 15,000  | 7,2852 | 617,49 | 5,7269 | 413,24 | 1619,5 | 1,7197 | 5,9060 |
| 16,000  | 7,5303 | 616,04 | 5,9123 | 417,97 | 1620,3 | 1,7359 | 5,8941 |
| 17,000  | 7,7817 | 614,59 | 6,1025 | 422,70 | 1621,1 | 1,7521 | 5,8824 |
| 18,000  | 8,0395 | 613,13 | 6,2975 | 427,44 | 1621,9 | 1,7682 | 5,8707 |
| 19,000  | 8,3038 | 611,67 | 6,4975 | 432,18 | 1622,6 | 1,7844 | 5,8590 |
| 20,000  | 8,5748 | 610,20 | 6,7025 | 436,94 | 1623,3 | 1,8005 | 5,8475 |
| 21,000  | 8,8524 | 608,72 | 6,9127 | 441,70 | 1624,0 | 1,8165 | 5,8359 |
| 22,000  | 9,1369 | 607,24 | 7,1281 | 446,47 | 1624,7 | 1,8326 | 5,8245 |
| 23,000  | 9,4283 | 605,76 | 7,3488 | 451,24 | 1625,3 | 1,8485 | 5,8131 |
| 24,000  | 9,7268 | 604,26 | 7,5751 | 456,03 | 1626,0 | 1,8645 | 5,8017 |
| 25,000  | 10,032 | 602,76 | 7,8069 | 460,82 | 1626,6 | 1,8804 | 5,7904 |

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IBAN: DE707907001600202804 00  
 BIC: DEUTDEMM790



# R 717 (Ammoniak)



|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 26,000 | 10,345 | 601,26 | 8,0443 | 465,62 | 1627,2 | 1,8963 | 5,7792 |
| 27,000 | 10,666 | 599,75 | 8,2876 | 470,43 | 1627,7 | 1,9122 | 5,7680 |
| 28,000 | 10,993 | 598,23 | 8,5368 | 475,25 | 1628,3 | 1,9281 | 5,7569 |
| 29,000 | 11,329 | 596,70 | 8,7920 | 480,08 | 1628,8 | 1,9439 | 5,7458 |
| 30,000 | 11,672 | 595,17 | 9,0533 | 484,91 | 1629,3 | 1,9597 | 5,7347 |
| 31,000 | 12,023 | 593,63 | 9,3209 | 489,76 | 1629,8 | 1,9754 | 5,7237 |
| 32,000 | 12,382 | 592,08 | 9,5950 | 494,61 | 1630,3 | 1,9911 | 5,7128 |
| 33,000 | 12,749 | 590,53 | 9,8755 | 499,47 | 1630,7 | 2,0069 | 5,7019 |
| 34,000 | 13,124 | 588,97 | 10,163 | 504,34 | 1631,1 | 2,0225 | 5,6910 |
| 35,000 | 13,508 | 587,40 | 10,457 | 509,23 | 1631,5 | 2,0382 | 5,6801 |
| 36,000 | 13,900 | 585,82 | 10,758 | 514,12 | 1631,9 | 2,0538 | 5,6693 |
| 37,000 | 14,300 | 584,24 | 11,066 | 519,02 | 1632,2 | 2,0694 | 5,6586 |
| 38,000 | 14,709 | 582,65 | 11,381 | 523,93 | 1632,5 | 2,0850 | 5,6479 |
| 39,000 | 15,127 | 581,05 | 11,703 | 528,86 | 1632,8 | 2,1006 | 5,6372 |
| 40,000 | 15,554 | 579,44 | 12,034 | 533,79 | 1633,1 | 2,1161 | 5,6265 |
| 41,000 | 15,990 | 577,82 | 12,371 | 538,74 | 1633,3 | 2,1317 | 5,6159 |
| 42,000 | 16,435 | 576,20 | 12,717 | 543,69 | 1633,5 | 2,1472 | 5,6053 |
| 43,000 | 16,890 | 574,56 | 13,071 | 548,66 | 1633,7 | 2,1627 | 5,5947 |
| 44,000 | 17,353 | 572,92 | 13,432 | 553,64 | 1633,9 | 2,1781 | 5,5841 |
| 45,000 | 17,827 | 571,27 | 13,803 | 558,63 | 1634,0 | 2,1936 | 5,5736 |
| 46,000 | 18,310 | 569,61 | 14,181 | 563,63 | 1634,1 | 2,2090 | 5,5631 |
| 47,000 | 18,802 | 567,94 | 14,569 | 568,65 | 1634,2 | 2,2244 | 5,5526 |
| 48,000 | 19,305 | 566,25 | 14,965 | 573,68 | 1634,2 | 2,2398 | 5,5422 |
| 49,000 | 19,818 | 564,56 | 15,371 | 578,72 | 1634,2 | 2,2552 | 5,5317 |
| 50,000 | 20,340 | 562,86 | 15,785 | 583,77 | 1634,2 | 2,2706 | 5,5213 |
| 51,000 | 20,873 | 561,15 | 16,209 | 588,84 | 1634,2 | 2,2860 | 5,5109 |
| 52,000 | 21,417 | 559,43 | 16,643 | 593,92 | 1634,1 | 2,3013 | 5,5005 |
| 53,000 | 21,971 | 557,70 | 17,087 | 599,02 | 1634,0 | 2,3167 | 5,4901 |
| 54,000 | 22,536 | 555,95 | 17,541 | 604,13 | 1633,9 | 2,3320 | 5,4797 |
| 55,000 | 23,111 | 554,20 | 18,006 | 609,26 | 1633,7 | 2,3473 | 5,4693 |
| 56,000 | 23,698 | 552,43 | 18,481 | 614,40 | 1633,5 | 2,3627 | 5,4589 |
| 57,000 | 24,295 | 550,65 | 18,967 | 619,56 | 1633,3 | 2,3780 | 5,4486 |
| 58,000 | 24,904 | 548,86 | 19,464 | 624,73 | 1633,0 | 2,3933 | 5,4382 |
| 59,000 | 25,524 | 547,06 | 19,973 | 629,92 | 1632,7 | 2,4086 | 5,4278 |
| 60,000 | 26,156 | 545,24 | 20,493 | 635,12 | 1632,4 | 2,4239 | 5,4174 |
| 61,000 | 26,799 | 543,41 | 21,025 | 640,35 | 1632,1 | 2,4392 | 5,4071 |
| 62,000 | 27,454 | 541,57 | 21,570 | 645,59 | 1631,7 | 2,4545 | 5,3967 |
| 63,000 | 28,121 | 539,72 | 22,127 | 650,84 | 1631,2 | 2,4698 | 5,3863 |
| 64,000 | 28,800 | 537,85 | 22,697 | 656,12 | 1630,8 | 2,4851 | 5,3759 |
| 65,000 | 29,491 | 535,96 | 23,280 | 661,42 | 1630,2 | 2,5004 | 5,3655 |
| 66,000 | 30,195 | 534,06 | 23,877 | 666,73 | 1629,7 | 2,5157 | 5,3550 |
| 67,000 | 30,911 | 532,15 | 24,488 | 672,07 | 1629,1 | 2,5310 | 5,3446 |
| 68,000 | 31,639 | 530,22 | 25,113 | 677,42 | 1628,5 | 2,5463 | 5,3341 |
| 69,000 | 32,381 | 528,27 | 25,753 | 682,80 | 1627,8 | 2,5617 | 5,3236 |
| 70,000 | 33,135 | 526,31 | 26,407 | 688,20 | 1627,1 | 2,5770 | 5,3131 |
| 71,000 | 33,902 | 524,33 | 27,078 | 693,62 | 1626,3 | 2,5923 | 5,3026 |
| 72,000 | 34,682 | 522,33 | 27,764 | 699,06 | 1625,5 | 2,6077 | 5,2920 |
| 73,000 | 35,476 | 520,32 | 28,467 | 704,53 | 1624,7 | 2,6231 | 5,2814 |
| 74,000 | 36,284 | 518,28 | 29,186 | 710,02 | 1623,8 | 2,6385 | 5,2707 |
| 75,000 | 37,105 | 516,23 | 29,923 | 715,53 | 1622,9 | 2,6539 | 5,2601 |

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IBAN: DE707907001600202804 00  
BIC: DEUTDEMM790

DCC business

# R 717 (Ammoniak)



|         |         |        |         |        |        |         |        |
|---------|---------|--------|---------|--------|--------|---------|--------|
| 76,000  | 37,939  | 514,16 | 30,678  | 721,07 | 1621,9 | 2,6693  | 5,2493 |
| 77,000  | 38,788  | 512,07 | 31,451  | 726,64 | 1620,9 | 2,6847  | 5,2386 |
| 78,000  | 39,651  | 509,96 | 32,244  | 732,23 | 1619,8 | 2,7002  | 5,2278 |
| 79,000  | 40,528  | 507,83 | 33,056  | 737,85 | 1618,6 | 2,7157  | 5,2169 |
| 80,000  | 41,420  | 505,67 | 33,888  | 743,50 | 1617,5 | 2,7312  | 5,2060 |
| -70,000 | 0,10941 | 724,72 | 0,11101 | 32,343 | 1498,7 | 0,16220 | 7,3803 |
| -69,000 | 0,11768 | 723,63 | 0,11886 | 36,591 | 1500,6 | 0,18306 | 7,3541 |
| -68,000 | 0,12647 | 722,53 | 0,12715 | 40,846 | 1502,4 | 0,20384 | 7,3281 |
| -67,000 | 0,13581 | 721,43 | 0,13593 | 45,106 | 1504,2 | 0,22455 | 7,3025 |
| -66,000 | 0,14572 | 720,33 | 0,14520 | 49,372 | 1506,1 | 0,24519 | 7,2772 |
| -65,000 | 0,15624 | 719,22 | 0,15499 | 53,645 | 1507,9 | 0,26576 | 7,2522 |
| -64,000 | 0,16739 | 718,11 | 0,16532 | 57,922 | 1509,7 | 0,28625 | 7,2276 |
| -63,000 | 0,17921 | 716,99 | 0,17621 | 62,206 | 1511,5 | 0,30668 | 7,2032 |
| -62,000 | 0,19171 | 715,87 | 0,18769 | 66,496 | 1513,3 | 0,32703 | 7,1791 |
| -61,000 | 0,20495 | 714,75 | 0,19978 | 70,792 | 1515,1 | 0,34732 | 7,1553 |
| -60,000 | 0,21893 | 713,62 | 0,21251 | 75,093 | 1516,9 | 0,36754 | 7,1318 |
| -59,000 | 0,23371 | 712,48 | 0,22589 | 79,400 | 1518,7 | 0,38769 | 7,1085 |
| -58,000 | 0,24932 | 711,35 | 0,23997 | 83,714 | 1520,4 | 0,40778 | 7,0856 |
| -57,000 | 0,26579 | 710,20 | 0,25475 | 88,033 | 1522,2 | 0,42779 | 7,0629 |
| -56,000 | 0,28315 | 709,06 | 0,27028 | 92,357 | 1524,0 | 0,44774 | 7,0405 |
| -55,000 | 0,30145 | 707,90 | 0,28657 | 96,688 | 1525,7 | 0,46763 | 7,0183 |
| -54,000 | 0,32072 | 706,75 | 0,30366 | 101,02 | 1527,5 | 0,48745 | 6,9964 |
| -53,000 | 0,34101 | 705,59 | 0,32157 | 105,37 | 1529,2 | 0,50720 | 6,9747 |
| -52,000 | 0,36235 | 704,43 | 0,34034 | 109,71 | 1530,9 | 0,52690 | 6,9533 |
| -51,000 | 0,38479 | 703,26 | 0,35999 | 114,07 | 1532,6 | 0,54652 | 6,9321 |
| -50,000 | 0,40836 | 702,09 | 0,38055 | 118,43 | 1534,3 | 0,56609 | 6,9112 |
| -49,000 | 0,43312 | 700,91 | 0,40207 | 122,79 | 1536,0 | 0,58559 | 6,8905 |
| -48,000 | 0,45911 | 699,73 | 0,42456 | 127,16 | 1537,7 | 0,60503 | 6,8700 |
| -47,000 | 0,48637 | 698,55 | 0,44806 | 131,54 | 1539,4 | 0,62440 | 6,8498 |
| -46,000 | 0,51495 | 697,36 | 0,47261 | 135,92 | 1541,1 | 0,64371 | 6,8298 |
| -45,000 | 0,54489 | 696,17 | 0,49824 | 140,31 | 1542,7 | 0,66297 | 6,8100 |
| -44,000 | 0,57626 | 694,97 | 0,52498 | 144,70 | 1544,4 | 0,68216 | 6,7904 |
| -43,000 | 0,60909 | 693,77 | 0,55287 | 149,10 | 1546,0 | 0,70129 | 6,7710 |
| -42,000 | 0,64345 | 692,57 | 0,58194 | 153,50 | 1547,7 | 0,72036 | 6,7518 |
| -41,000 | 0,67937 | 691,36 | 0,61224 | 157,91 | 1549,3 | 0,73937 | 6,7329 |
| -40,000 | 0,71692 | 690,15 | 0,64380 | 162,32 | 1550,9 | 0,75832 | 6,7141 |
| -39,000 | 0,75615 | 688,94 | 0,67665 | 166,74 | 1552,5 | 0,77721 | 6,6955 |
| -38,000 | 0,79711 | 687,72 | 0,71085 | 171,17 | 1554,1 | 0,79604 | 6,6772 |
| -37,000 | 0,83986 | 686,49 | 0,74641 | 175,60 | 1555,7 | 0,81482 | 6,6590 |
| -36,000 | 0,88447 | 685,27 | 0,78340 | 180,03 | 1557,3 | 0,83353 | 6,6410 |
| -35,000 | 0,93098 | 684,04 | 0,82184 | 184,48 | 1558,8 | 0,85219 | 6,6232 |
| -34,000 | 0,97946 | 682,80 | 0,86178 | 188,92 | 1560,4 | 0,87079 | 6,6055 |
| -33,000 | 1,0300  | 681,57 | 0,90326 | 193,37 | 1561,9 | 0,88933 | 6,5880 |
| -32,000 | 1,0826  | 680,32 | 0,94633 | 197,83 | 1563,4 | 0,90782 | 6,5708 |
| -31,000 | 1,1373  | 679,08 | 0,99102 | 202,29 | 1565,0 | 0,92625 | 6,5536 |
| -30,000 | 1,1943  | 677,83 | 1,0374  | 206,76 | 1566,5 | 0,94462 | 6,5367 |
| -29,000 | 1,2535  | 676,58 | 1,0855  | 211,23 | 1568,0 | 0,96294 | 6,5199 |
| -28,000 | 1,3151  | 675,32 | 1,1353  | 215,71 | 1569,4 | 0,98120 | 6,5033 |
| -27,000 | 1,3792  | 674,06 | 1,1870  | 220,19 | 1570,9 | 0,99941 | 6,4868 |

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IBAN: DE707907001600202804 00  
BIC: DEUTDEMM790



# R 717 (Ammoniak)



|         |        |        |        |        |        |        |        |
|---------|--------|--------|--------|--------|--------|--------|--------|
| -26,000 | 1,4457 | 672,80 | 1,2405 | 224,68 | 1572,4 | 1,0176 | 6,4705 |
| -25,000 | 1,5147 | 671,53 | 1,2959 | 229,17 | 1573,8 | 1,0357 | 6,4543 |
| -24,000 | 1,5864 | 670,26 | 1,3533 | 233,66 | 1575,2 | 1,0537 | 6,4383 |
| -23,000 | 1,6608 | 668,98 | 1,4126 | 238,17 | 1576,7 | 1,0717 | 6,4224 |
| -22,000 | 1,7379 | 667,71 | 1,4740 | 242,67 | 1578,1 | 1,0896 | 6,4067 |
| -21,000 | 1,8179 | 666,42 | 1,5376 | 247,19 | 1579,5 | 1,1075 | 6,3911 |
| -20,000 | 1,9008 | 665,14 | 1,6033 | 251,71 | 1580,8 | 1,1253 | 6,3757 |
| -19,000 | 1,9867 | 663,85 | 1,6711 | 256,23 | 1582,2 | 1,1431 | 6,3604 |
| -18,000 | 2,0756 | 662,55 | 1,7413 | 260,76 | 1583,5 | 1,1609 | 6,3452 |
| -17,000 | 2,1677 | 661,25 | 1,8138 | 265,29 | 1584,9 | 1,1785 | 6,3302 |
| -16,000 | 2,2630 | 659,95 | 1,8886 | 269,83 | 1586,2 | 1,1962 | 6,3153 |
| -15,000 | 2,3617 | 658,65 | 1,9659 | 274,37 | 1587,5 | 1,2137 | 6,3005 |
| -14,000 | 2,4637 | 657,34 | 2,0456 | 278,92 | 1588,8 | 1,2313 | 6,2859 |
| -13,000 | 2,5691 | 656,02 | 2,1279 | 283,47 | 1590,1 | 1,2487 | 6,2713 |
| -12,000 | 2,6782 | 654,70 | 2,2128 | 288,03 | 1591,4 | 1,2662 | 6,2569 |
| -11,000 | 2,7908 | 653,38 | 2,3003 | 292,60 | 1592,6 | 1,2835 | 6,2426 |
| -10,000 | 2,9071 | 652,06 | 2,3906 | 297,16 | 1593,9 | 1,3009 | 6,2285 |
| -9,000  | 3,0273 | 650,73 | 2,4837 | 301,74 | 1595,1 | 1,3181 | 6,2144 |
| -8,000  | 3,1513 | 649,39 | 2,5795 | 306,32 | 1596,3 | 1,3354 | 6,2004 |
| -7,000  | 3,2793 | 648,06 | 2,6783 | 310,90 | 1597,5 | 1,3526 | 6,1866 |
| -6,000  | 3,4114 | 646,71 | 2,7801 | 315,49 | 1598,7 | 1,3697 | 6,1729 |
| -5,000  | 3,5476 | 645,37 | 2,8849 | 320,09 | 1599,8 | 1,3868 | 6,1592 |
| -4,000  | 3,6880 | 644,02 | 2,9928 | 324,69 | 1601,0 | 1,4038 | 6,1457 |
| -3,000  | 3,8327 | 642,66 | 3,1038 | 329,30 | 1602,1 | 1,4209 | 6,1323 |
| -2,000  | 3,9819 | 641,30 | 3,2181 | 333,91 | 1603,2 | 1,4378 | 6,1190 |
| -1,000  | 4,1356 | 639,94 | 3,3357 | 338,53 | 1604,3 | 1,4547 | 6,1058 |
| 0,0000  | 4,2938 | 638,57 | 3,4567 | 343,15 | 1605,4 | 1,4716 | 6,0926 |
| 1,000   | 4,4568 | 637,20 | 3,5811 | 347,78 | 1606,5 | 1,4884 | 6,0796 |
| 2,000   | 4,6246 | 635,82 | 3,7090 | 352,42 | 1607,5 | 1,5052 | 6,0667 |
| 3,000   | 4,7972 | 634,44 | 3,8405 | 357,06 | 1608,5 | 1,5219 | 6,0538 |
| 4,000   | 4,9748 | 633,06 | 3,9757 | 361,71 | 1609,6 | 1,5386 | 6,0410 |
| 5,000   | 5,1575 | 631,66 | 4,1146 | 366,36 | 1610,5 | 1,5553 | 6,0284 |
| 6,000   | 5,3453 | 630,27 | 4,2573 | 371,02 | 1611,5 | 1,5719 | 6,0158 |
| 7,000   | 5,5385 | 628,87 | 4,4039 | 375,69 | 1612,5 | 1,5885 | 6,0033 |
| 8,000   | 5,7370 | 627,46 | 4,5545 | 380,36 | 1613,4 | 1,6050 | 5,9908 |
| 9,000   | 5,9409 | 626,05 | 4,7092 | 385,04 | 1614,4 | 1,6215 | 5,9785 |
| 10,000  | 6,1505 | 624,64 | 4,8679 | 389,72 | 1615,3 | 1,6380 | 5,9662 |
| 11,000  | 6,3657 | 623,22 | 5,0309 | 394,41 | 1616,2 | 1,6544 | 5,9540 |
| 12,000  | 6,5866 | 621,79 | 5,1983 | 399,11 | 1617,0 | 1,6708 | 5,9419 |
| 13,000  | 6,8135 | 620,36 | 5,3700 | 403,81 | 1617,9 | 1,6871 | 5,9299 |
| 14,000  | 7,0463 | 618,93 | 5,5461 | 408,52 | 1618,7 | 1,7034 | 5,9179 |
| 15,000  | 7,2852 | 617,49 | 5,7269 | 413,24 | 1619,5 | 1,7197 | 5,9060 |
| 16,000  | 7,5303 | 616,04 | 5,9123 | 417,97 | 1620,3 | 1,7359 | 5,8941 |
| 17,000  | 7,7817 | 614,59 | 6,1025 | 422,70 | 1621,1 | 1,7521 | 5,8824 |
| 18,000  | 8,0395 | 613,13 | 6,2975 | 427,44 | 1621,9 | 1,7682 | 5,8707 |
| 19,000  | 8,3038 | 611,67 | 6,4975 | 432,18 | 1622,6 | 1,7844 | 5,8590 |
| 20,000  | 8,5748 | 610,20 | 6,7025 | 436,94 | 1623,3 | 1,8005 | 5,8475 |
| 21,000  | 8,8524 | 608,72 | 6,9127 | 441,70 | 1624,0 | 1,8165 | 5,8359 |
| 22,000  | 9,1369 | 607,24 | 7,1281 | 446,47 | 1624,7 | 1,8326 | 5,8245 |

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# R 717 (Ammoniak)



|        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 23,000 | 9,4283 | 605,76 | 7,3488 | 451,24 | 1625,3 | 1,8485 | 5,8131 |
| 24,000 | 9,7268 | 604,26 | 7,5751 | 456,03 | 1626,0 | 1,8645 | 5,8017 |
| 25,000 | 10,032 | 602,76 | 7,8069 | 460,82 | 1626,6 | 1,8804 | 5,7904 |
| 26,000 | 10,345 | 601,26 | 8,0443 | 465,62 | 1627,2 | 1,8963 | 5,7792 |
| 27,000 | 10,666 | 599,75 | 8,2876 | 470,43 | 1627,7 | 1,9122 | 5,7680 |
| 28,000 | 10,993 | 598,23 | 8,5368 | 475,25 | 1628,3 | 1,9281 | 5,7569 |
| 29,000 | 11,329 | 596,70 | 8,7920 | 480,08 | 1628,8 | 1,9439 | 5,7458 |
| 30,000 | 11,672 | 595,17 | 9,0533 | 484,91 | 1629,3 | 1,9597 | 5,7347 |
| 31,000 | 12,023 | 593,63 | 9,3209 | 489,76 | 1629,8 | 1,9754 | 5,7237 |
| 32,000 | 12,382 | 592,08 | 9,5950 | 494,61 | 1630,3 | 1,9911 | 5,7128 |
| 33,000 | 12,749 | 590,53 | 9,8755 | 499,47 | 1630,7 | 2,0069 | 5,7019 |
| 34,000 | 13,124 | 588,97 | 10,163 | 504,34 | 1631,1 | 2,0225 | 5,6910 |
| 35,000 | 13,508 | 587,40 | 10,457 | 509,23 | 1631,5 | 2,0382 | 5,6801 |
| 36,000 | 13,900 | 585,82 | 10,758 | 514,12 | 1631,9 | 2,0538 | 5,6693 |
| 37,000 | 14,300 | 584,24 | 11,066 | 519,02 | 1632,2 | 2,0694 | 5,6586 |
| 38,000 | 14,709 | 582,65 | 11,381 | 523,93 | 1632,5 | 2,0850 | 5,6479 |
| 39,000 | 15,127 | 581,05 | 11,703 | 528,86 | 1632,8 | 2,1006 | 5,6372 |
| 40,000 | 15,554 | 579,44 | 12,034 | 533,79 | 1633,1 | 2,1161 | 5,6265 |
| 41,000 | 15,990 | 577,82 | 12,371 | 538,74 | 1633,3 | 2,1317 | 5,6159 |
| 42,000 | 16,435 | 576,20 | 12,717 | 543,69 | 1633,5 | 2,1472 | 5,6053 |
| 43,000 | 16,890 | 574,56 | 13,071 | 548,66 | 1633,7 | 2,1627 | 5,5947 |
| 44,000 | 17,353 | 572,92 | 13,432 | 553,64 | 1633,9 | 2,1781 | 5,5841 |
| 45,000 | 17,827 | 571,27 | 13,803 | 558,63 | 1634,0 | 2,1936 | 5,5736 |
| 46,000 | 18,310 | 569,61 | 14,181 | 563,63 | 1634,1 | 2,2090 | 5,5631 |
| 47,000 | 18,802 | 567,94 | 14,569 | 568,65 | 1634,2 | 2,2244 | 5,5526 |
| 48,000 | 19,305 | 566,25 | 14,965 | 573,68 | 1634,2 | 2,2398 | 5,5422 |
| 49,000 | 19,818 | 564,56 | 15,371 | 578,72 | 1634,2 | 2,2552 | 5,5317 |
| 50,000 | 20,340 | 562,86 | 15,785 | 583,77 | 1634,2 | 2,2706 | 5,5213 |
| 51,000 | 20,873 | 561,15 | 16,209 | 588,84 | 1634,2 | 2,2860 | 5,5109 |
| 52,000 | 21,417 | 559,43 | 16,643 | 593,92 | 1634,1 | 2,3013 | 5,5005 |
| 53,000 | 21,971 | 557,70 | 17,087 | 599,02 | 1634,0 | 2,3167 | 5,4901 |
| 54,000 | 22,536 | 555,95 | 17,541 | 604,13 | 1633,9 | 2,3320 | 5,4797 |
| 55,000 | 23,111 | 554,20 | 18,006 | 609,26 | 1633,7 | 2,3473 | 5,4693 |
| 56,000 | 23,698 | 552,43 | 18,481 | 614,40 | 1633,5 | 2,3627 | 5,4589 |
| 57,000 | 24,295 | 550,65 | 18,967 | 619,56 | 1633,3 | 2,3780 | 5,4486 |
| 58,000 | 24,904 | 548,86 | 19,464 | 624,73 | 1633,0 | 2,3933 | 5,4382 |
| 59,000 | 25,524 | 547,06 | 19,973 | 629,92 | 1632,7 | 2,4086 | 5,4278 |
| 60,000 | 26,156 | 545,24 | 20,493 | 635,12 | 1632,4 | 2,4239 | 5,4174 |
| 61,000 | 26,799 | 543,41 | 21,025 | 640,35 | 1632,1 | 2,4392 | 5,4071 |
| 62,000 | 27,454 | 541,57 | 21,570 | 645,59 | 1631,7 | 2,4545 | 5,3967 |
| 63,000 | 28,121 | 539,72 | 22,127 | 650,84 | 1631,2 | 2,4698 | 5,3863 |
| 64,000 | 28,800 | 537,85 | 22,697 | 656,12 | 1630,8 | 2,4851 | 5,3759 |
| 65,000 | 29,491 | 535,96 | 23,280 | 661,42 | 1630,2 | 2,5004 | 5,3655 |
| 66,000 | 30,195 | 534,06 | 23,877 | 666,73 | 1629,7 | 2,5157 | 5,3550 |
| 67,000 | 30,911 | 532,15 | 24,488 | 672,07 | 1629,1 | 2,5310 | 5,3446 |
| 68,000 | 31,639 | 530,22 | 25,113 | 677,42 | 1628,5 | 2,5463 | 5,3341 |
| 69,000 | 32,381 | 528,27 | 25,753 | 682,80 | 1627,8 | 2,5617 | 5,3236 |
| 70,000 | 33,135 | 526,31 | 26,407 | 688,20 | 1627,1 | 2,5770 | 5,3131 |

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Deutsche Bank Würzburg

IBAN: DE707907001600202804 00  
 BIC: DEUTDEMM790

a DCC business

# R 717 (Ammoniak)



|               |        |        |        |        |        |        |        |
|---------------|--------|--------|--------|--------|--------|--------|--------|
| <b>71,000</b> | 33,902 | 524,33 | 27,078 | 693,62 | 1626,3 | 2,5923 | 5,3026 |
| <b>72,000</b> | 34,682 | 522,33 | 27,764 | 699,06 | 1625,5 | 2,6077 | 5,2920 |
| <b>73,000</b> | 35,476 | 520,32 | 28,467 | 704,53 | 1624,7 | 2,6231 | 5,2814 |
| <b>74,000</b> | 36,284 | 518,28 | 29,186 | 710,02 | 1623,8 | 2,6385 | 5,2707 |
| <b>75,000</b> | 37,105 | 516,23 | 29,923 | 715,53 | 1622,9 | 2,6539 | 5,2601 |
| <b>76,000</b> | 37,939 | 514,16 | 30,678 | 721,07 | 1621,9 | 2,6693 | 5,2493 |
| <b>77,000</b> | 38,788 | 512,07 | 31,451 | 726,64 | 1620,9 | 2,6847 | 5,2386 |
| <b>78,000</b> | 39,651 | 509,96 | 32,244 | 732,23 | 1619,8 | 2,7002 | 5,2278 |
| <b>79,000</b> | 40,528 | 507,83 | 33,056 | 737,85 | 1618,6 | 2,7157 | 5,2169 |
| <b>80,000</b> | 41,420 | 505,67 | 33,888 | 743,50 | 1617,5 | 2,7312 | 5,2060 |

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