

Properties of Ammonium Chloride Solutions

| Weight (%) | Density (kg/m ³) | Cl ⁻ (mg/L) | NH ₄ ⁺ (mg/L) | NH ₄ Cl (kg/m ³) | Water (m ³) | Crystallization Point (°C) |
|------------|------------------------------|------------------------|-------------------------------------|---|-------------------------|----------------------------|
| 1 | 1001 | 6,066 | 3,934 | 10.0 | 0.991 | -0.6 |
| 2 | 1005 | 12,193 | 7,907 | 20.0 | 0.984 | -1.3 |
| 3 | 1008 | 18,320 | 11,880 | 30.2 | 0.977 | -1.9 |
| 4 | 1011 | 24,508 | 15,892 | 40.2 | 0.970 | -2.5 |
| 5 | 1014 | 30,756 | 19,944 | 50.4 | 0.963 | -3.2 |
| 6 | 1017 | 37,004 | 23,996 | 60.9 | 0.956 | -3.9 |
| 7 | 1020 | 43,313 | 28,087 | 71.2 | 0.948 | -4.7 |
| 8 | 1023 | 49,622 | 32,178 | 81.5 | 0.941 | -5.4 |
| 9 | 1026 | 55,992 | 36,308 | 92.1 | 0.933 | -6.2 |
| 10 | 1029 | 62,422 | 40,478 | 102.6 | 0.926 | -6.9 |
| 11 | 1032 | 68,852 | 44,648 | 113.1 | 0.918 | -7.8 |
| 12 | 1034 | 75,282 | 48,818 | 123.7 | 0.910 | -8.6 |
| 13 | 1037 | 81,773 | 53,027 | 134.5 | 0.902 | -9.4 |
| 14 | 1040 | 88,325 | 57,275 | 145.3 | 0.895 | - |
| 15 | 1043 | 94,877 | 61,523 | 155.9 | 0.887 | -11.7 |
| 16 | 1046 | 101,489 | 65,811 | 167.0 | 0.878 | - |
| 17 | 1049 | 108,101 | 70,099 | 177.8 | 0.870 | - |
| 18 | 1051 | 114,774 | 74,426 | 188.7 | 0.862 | - |
| 19 | 1054 | 121,508 | 78,792 | 199.8 | 0.854 | - |
| 20 | 1057 | 128,180 | 83,120 | 210.9 | 0.845 | - |
| 22 | 1062 | 141,769 | 91,931 | 233.1 | 0.828 | - |
| 24 | 1067 | 155,418 | 100,782 | 255.6 | 0.811 | -0.5 |

Properties based on 20°C and 100% purity