

SOCI2[g]

SULFINYL DICHLORIDE (GAS)

118.971

| Phase | T [K] | C _p [————— J / (K mol) —————] | S | -(G-H298)/T [—————] | H | H-H298 | G | ΔH _f | ΔG _f | log K _f [-] |
|-------|------------|---|---------|--------------------------|----------|--------|----------|-----------------|-----------------|-----------------------------|
| GAS | 298.15 | 66.575 | 308.052 | 308.052 | -212.338 | 0.000 | -304.184 | -212.338 | -197.522 | 34.605 |
| | 300.00 | 66.709 | 308.464 | 308.053 | -212.215 | 0.123 | -304.754 | -212.347 | -197.430 | 34.376 |
| | 400.00 | 71.679 | 328.423 | 310.741 | -205.265 | 7.073 | -336.634 | -214.931 | -192.309 | 25.113 |
| | 500.00 | 74.366 | 344.731 | 315.959 | -197.952 | 14.386 | -370.317 | -216.620 | -186.478 | 19.481 |
| | 600.00 | 76.155 | 358.457 | 321.928 | -190.421 | 21.917 | -405.495 | -217.880 | -180.321 | 15.698 |
| | 700.00 | 77.519 | 370.302 | 328.012 | -182.735 | 29.603 | -441.946 | -218.808 | -173.986 | 12.983 |
| | 800.00 | 78.657 | 380.730 | 333.963 | -174.924 | 37.414 | -479.508 | -219.731 | -167.521 | 10.938 |
| | 900.00 | 79.663 | 390.053 | 339.686 | -167.008 | 45.330 | -518.055 | -273.449 | -159.786 | 9.274 |
| | 1000.00 | 80.588 | 398.495 | 345.151 | -158.995 | 53.343 | -557.489 | -272.744 | -147.194 | 7.689 |
| | 1100.00 | 81.459 | 406.217 | 350.357 | -150.892 | 61.446 | -597.730 | -271.991 | -134.675 | 6.395 |

References

| Phase | H / S | C _p |
|-------|-------|----------------|
| GAS | Tk1 | La1 |

SO2Cl2[g]

SULFONYL DICHLORIDE (GAS)

134.970

| Phase | T [K] | C _p [————— J / (K mol) —————] | S | -(G-H298)/T [—————] | H | H-H298 | G | ΔH _f | ΔG _f | log K _f [-] |
|-------|------------|---|---------|--------------------------|----------|---------|-----------|-----------------|-----------------|-----------------------------|
| GAS | 298.15 | 77.107 | 311.106 | 311.106 | -354.803 | 0.000 | -447.559 | -354.803 | -310.315 | 54.366 |
| | 300.00 | 77.271 | 311.584 | 311.108 | -354.660 | 0.143 | -448.135 | -354.820 | -310.039 | 53.983 |
| | 400.00 | 85.169 | 334.949 | 314.240 | -346.519 | 8.284 | -480.499 | -357.698 | -294.912 | 38.512 |
| | 500.00 | 90.715 | 354.589 | 320.398 | -337.707 | 17.096 | -515.002 | -359.418 | -279.031 | 29.150 |
| | 600.00 | 94.552 | 371.488 | 327.538 | -328.433 | 26.370 | -551.326 | -360.514 | -262.839 | 22.882 |
| | 700.00 | 97.305 | 386.281 | 334.895 | -318.833 | 35.970 | -589.230 | -361.155 | -246.506 | 18.394 |
| | 800.00 | 99.350 | 399.414 | 342.155 | -308.995 | 45.808 | -628.527 | -361.720 | -230.089 | 15.023 |
| | 900.00 | 100.908 | 411.210 | 349.183 | -298.979 | 55.824 | -669.068 | -415.041 | -212.450 | 12.330 |
| | 1000.00 | 102.115 | 421.907 | 355.929 | -288.825 | 65.978 | -710.732 | -413.926 | -189.999 | 9.925 |
| | 1100.00 | 103.062 | 431.686 | 362.378 | -278.565 | 76.238 | -753.419 | -412.770 | -167.662 | 7.962 |
| | 1200.00 | 103.808 | 440.687 | 368.534 | -268.220 | 86.583 | -797.043 | -411.586 | -145.431 | 6.330 |
| | 1300.00 | 104.400 | 449.020 | 374.408 | -257.808 | 96.995 | -841.534 | -410.385 | -123.300 | 4.954 |
| | 1400.00 | 104.871 | 456.775 | 380.018 | -247.344 | 107.459 | -886.828 | -409.174 | -101.262 | 3.778 |
| | 1500.00 | 105.249 | 464.023 | 385.379 | -236.837 | 117.966 | -932.872 | -407.961 | -79.311 | 2.762 |
| | 1600.00 | 105.558 | 470.826 | 390.509 | -226.296 | 128.507 | -979.618 | -406.751 | -57.440 | 1.875 |
| | 1700.00 | 105.817 | 477.234 | 395.424 | -215.727 | 139.076 | -1027.024 | -405.550 | -35.645 | 1.095 |
| | 1800.00 | 106.045 | 483.289 | 400.139 | -205.134 | 149.669 | -1075.053 | -404.360 | -13.921 | 0.404 |
| | 1900.00 | 106.259 | 489.028 | 404.668 | -194.518 | 160.285 | -1123.671 | -403.182 | 7.738 | -0.213 |
| | 2000.00 | 106.473 | 494.484 | 409.023 | -183.882 | 170.921 | -1172.849 | -402.018 | 29.335 | -0.766 |

References

| Phase | H / S | C _p |
|-------|-------|----------------|
| GAS | Ja1 | Ja1 |