The phase equilibrium of the TbBr$_3$-KBr has been established by Differential Scanning Calorimetry. This system has the three compounds K$_3$TbBr$_6$, K$_2$TbBr$_5$, and KTb$_2$Br$_7$ and two eutectics located at ($x_{\text{Tb}} = 0.163$ (885 K) and ($x_{\text{Tb}} = 0.433$ (697 K). K$_3$TbBr$_6$ undergoes a solid-solid phase transition at 691 K and melts congruently at 983 K with the corresponding enthalpies $8.0$ and $48.0$ kJ mol$^{-1}$. K$_2$TbBr$_5$ melts incongruently at 725 K, and KTb$_2$Br$_7$ at 741 K. The latter forms at 694 K, a temperature very close to that (697 K) of one of the two eutectics also existing in the binary system.

**Key words:** Terbium(III) Bromide; Potassium Bromide; Enthalpy; Phase Diagram; Differential Scanning Calorimetry; Eutectic; Compound; Formation; Decomposition.