Dependence of solubility of inorganic substances on temperature

$$\log(x) = A + \frac{B}{T} + C \cdot \log T$$

- x is the mole fraction of a solute in a saturated solution at temperature T in K (always calculated for the anhydrous substance, regardless of what hydrate it forms under the given conditions)
- Empirical constants A, B, C are for several inorganic substances in the table and are valid from temperature t_{min} to temperature t_{max}

Substance	M kg kmol^{-1}	A	B	C	t_{min} °C	t_{max} °C
$NaOH.4H_2O$	112,06	-164,262	6239,827	57,71625	0	5
$NaOH.3,5H_2O$	103,05	-797,787	33315,13	277,0793	5	12
$NaOH.H_2O$	58,01	-45,0335	1810,79	15,55409	12	61,8
$NaOH$	40,00	-4,69766	136,5988	1,600562	61,8	100
$KOH.2H_2O$	92,14	-38,8579	1430,729	13,54007	0	33
$KOH.H_2O$	74,12	-19,4306	811,5422	6,54118	33	100
$NaCl$	58,44	-5,89477	199,6575	1,707143	0	100
KCl	74,55	6,75911	-604,335	-2,35704	0	100
NH_4Cl	53,49	0,13249	-358,425	0,055203	0	100
$CaCl_2.6H_2O$	219,08	-215,377	8816,696	74,7194	0	29
$CaCl_2.2H_2O$	147,02	-10,4826	359,8463	3,433722	45,1	100
KBr	119,00	8,22044	-652,446	-2,85434	0	100
KNO_3	101,10	59,93325	-3821,883	-19,5233	0	100
NH_4NO_3	80,04	25,70489	-1650,43	-8,34938	0	32
NH_4NO_3	80,04	16,96393	-1232,00	-5,38289	33	84
NH_4NO_3	80,04	3,58796	-594,265	-0,84154	85	100
$Na_2SO_4.10H_2O$	322,19	-150,9361	4229,375	54,67266	0	32
Na_2SO_4	142,04	-12,9274	672,5080	3,822532	33	100
$(NH_4)_2SO_4$	132,13	-8,41382	222,1496	2,685048	0	100