



## Quantitative chemical analysis

### Gerolsteiner Sprudel

Excerpt from the **approval analysis** done by the Fresenius Institute, dated April 23<sup>rd</sup> 1986. Besides continuous controls by the company laboratory, regular **control analyses** are conducted by the Fresenius Institute.

One liter of "Gerolsteiner Sprudel" water contains:

	<b>Mass Concentration mg/l</b>	<b>Equivalent Concentration mmol/l</b>	<b>Equivalent Part %</b>
<b>Cations</b>			
Lithium (Li <sup>+</sup> )	0.13	0.0187	0.06
Sodium (Na <sup>+</sup> )	118.00	5.1760	16.30
Potassium (K <sup>+</sup> )	10.80	0.2762	0.85
Ammonium (NH <sub>4</sub> <sup>+</sup> )	0.08	0.0044	0.01
Magnesium (Mg <sub>2</sub> <sup>+</sup> )	108.00	8.8870	27.98
Calcium (Ca <sub>2</sub> <sup>+</sup> )	348.00	17.3200	54.69
Strontium (Sr <sub>2</sub> <sup>+</sup> )	2.90	0.0662	0.21
Barium (Ba <sub>2</sub> <sup>+</sup> )	0.014	0.0002	-
Manganese (Mn <sub>2</sub> <sup>+</sup> )	0.39	0.0142	0.04
<b>Sum</b>		31.76	100.00
<b>Anions</b>			
Fluoride (F)	0.21	0.0111	0.03
Chloride (Cl)	39.70	1.1200	3.52
Bromide (Br)	0.12	0.0015	-
Nitrate (NO <sub>3</sub> <sup>-</sup> )	5.10	0.0823	0.28
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	38.30	0.7974	2.51
Hydrogen phosphate (HPO <sub>4</sub> <sup>2-</sup> )	0.07	0,0015	-
Hydrogen carbonate (HCO <sub>3</sub> <sup>-</sup> )	1 816,00	29.7600	93.64
<b>Sum</b>	2 488,00	31.78	100.00

A standard bottle has the following carbon dioxide (CO<sub>2</sub>) content:

Gerolsteiner	Sprudel	7.000	mg/l
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