



## What's in the water?

Not all waters are equal, yet most people seem to believe if it comes in a bottle it must be good. We urge you to read this section to understand a little more about minerals in water and what some of the different minerals are. In this way, you will discover what the characteristics of different mineral waters are and which of these characteristics appeal to your taste buds. You might also discover there are certain waters you would prefer not to drink.

AQUAPAX pure still mineral water is naturally low in minerals, has a near perfect pH balance, and is virtually nitrate free. This makes AQUAPAX suitable for infant consumption as well as suitable for anyone on a low sodium or nitrate sensitive diet.

**Natural Mineral Water:** (NMW) is water originating from an underground water table or deposit, which is bottled / packed at source, and is microbiologically wholesome and naturally free from pollution and harmful micro-organisms. It is characterised by a stable composition (minerals, trace elements etc.) which is preserved intact by the extraction and bottling methods. NMW in its state at source may not be the subject of any addition other than the introduction or reintroduction of carbon dioxide under certain conditions.

**Spring Water:** is water originating from an underground water table or deposit, which is also bottled at source. It should be microbiologically wholesome and naturally free from pollution and harmful micro-organisms, however, it does not need to demonstrate a stable composition.

**Bottled Drinking Water:** is any bottled drinking water which is neither spring water nor natural mineral water. It can come from a variety of sources, including municipal (tap) sources. Unlike natural mineral water and spring water, bottled drinking water can be treated without restriction providing it does not make the water unsafe.

**Information Source:** [www.bottledwaterinformation.co.uk](http://www.bottledwaterinformation.co.uk)

## Mineral Overview and Recommended Daily Allowance (RDA)

- HCO<sub>3</sub><sup>-</sup>** Bicarbonate or Hydrogencarbonate, helps to maintain acid balance in the stomach and the intestines and support the digestion. Helps against the effects of a hang-over. The Bicarbonate level in AQUAPAX is 145mg/l.
- Ca<sup>++</sup>** Calcium is used to build bones and teeth. If you don't have enough over a long time, it may lead to osteoporosis. Muscle activity and transmission of nerve signals also relies on calcium. It is also used for coagulation of the blood and regulates heart activity. Calcium deficiency increases the risk of high blood pressure and heart attack. Hormone secretion is also regulated by calcium. It is used in enzyme production. Together with magnesium, calcium provides 'electricity' for the heart. The RDA is 800 to 1000 mg and AQUAPAX contains 58.7mg/l of Calcium.
- Mg<sup>++</sup>** Magnesium is essential for bones and cells, especially the muscular cells. It helps maintaining the muscular and nervous equilibrium. It is also used for building bones and tendons and in the construction of many enzymes and is useful in fighting osteoporosis and kidney stones. The RDA is 300 to 400 mg and AQUAPAX contains 6.3mg/l of Mg<sup>++</sup>
- Cl<sup>-</sup>** Together with sodium, chloride or chlorine forms our normal salt, used to spice up our regular diet. While too much salt is unhealthy, none at all can lead to serious malfunction in our body as well. Chloride and sodium are used to maintain osmotic pressure in the cells. As part of the digestive acids in the stomach it plays an important role in the digestion. Chlorine is also used to purify water. The RDA is 1700 to 5100 mg – AQUAPAX contains 13.6mg/l of Cl<sup>-</sup>.
- Na<sup>+</sup>** Sodium is essential for the exchange of water between the cells and the intercellular medium. It is also important for the working of muscles, enabling contraction. Together with chloride, sodium forms our normal salt, used to spice up our regular diet. To determine the amount of salt in a water it is not sufficient to measure the sodium content, but also the amount of chloride. While too much salt is unhealthy, none at all can lead to serious malfunction in our body as well. RDA is 2000 to 3000 mg and AQUAPAX contains 6.5mg/l of Na<sup>+</sup> making it suitable for a low sodium diet.
- SO<sub>4</sub><sup>2-</sup>** Sulfur, the "S-part" of sulphate, is essential in maintaining healthy, flexible cells. It is also part of many enzymes. Lack of sulfur inhibits the body's ability to repair damaged cells properly. AQUAPAX contains 48mg/l of SO<sub>4</sub><sup>2-</sup>.
- K<sup>+</sup>** Potassium is needed for regulation of water in the cells. It maintains the osmotic pressure. Potassium is also responsible for the transmission of



nerve impulses and for muscle contractions. Potassium helps maintain the balance of fluids, thus helping to prevent dehydration and excess fluid retention. Some believe that it may be needed to fight cancer. RDA is 3000 to 4000 mg, - usually covered by a regular daily diet. A deficiency of potassium leads to muscle weakness, low blood pressure, constipation, general fatigue and nervousness. AQUAPAX contains 1.0mg/l of Potassium.

**NO<sub>3</sub><sup>-</sup>** Nitrate is a naturally occurring form of nitrogen (N) and one of the most common groundwater contaminants in rural areas. Nitrate and nitrite are regulated in drinking water as excess nitrate levels can cause "blue baby" disease (methemoglobinemia). Drinking water high in nitrate is potentially harmful to human and animal health. WHO / DWI limits for nitrate in drinking water is 50mg/l and for nitrite is 0.5mg/l. The RDA for nitrates is none.

AQUAPAX contains less than 0.3mg/l of nitrate and less than 0.005mg/l of nitrite! Together with the low sodium content, this makes AQUAPAX suitable for infant consumption - as part of a balanced diet.

**pH** Liquids with a pH value from 0 to 7 is acid, whereas over 7 it is alkaline. Mineral water should be as neutral (i.e. as near to 7) as possible. High acidity over a long time may erode teeth. Adding CO<sub>2</sub> to a water increases its acidity. pH is measured as the concentration of Hydrogen ions (H<sup>+</sup>) in a solution. Mathematically this is expressed as  $pH = -\log_{10}(H^+)$ . The pH of AQUAPAX water is 7,1

**TDS** **Total Dissolved Solids:** This indicates how many minerals and other solvents are contained in one litre of water. Technically, these are the dry residue that remain after the water has been heated to 180 C. AQUAPAX contains just 275mg/l of TDS. (Method: DIN 38409-1-1)

Now you know a little more about what's in the water – why not try having a search beyond the marketing graphics of the water brand you normally drink to compare some of our transparent mineral and other contents to theirs? Some things are more difficult to find than others, so good luck in your search. ☺

**Information Source:** [mineralwaters.org](http://mineralwaters.org) ; [dwi.gov.org](http://dwi.gov.org) & [bottledwaterinformation.co.uk](http://bottledwaterinformation.co.uk)



## What's in AQUAPAX?

The composition of AQUAPAX water, in accordance with the analytical results of the officially recognised Fresenius chemical institute of 24.05.2006 is as follows: -

<b>Typical Analysis:</b>	<b>mg/l</b>
Bicarbonate (HCO <sub>3</sub> )	145
Calcium (Ca)	58,7
Magnesium (Mg)	6,3
Chloride (Cl)	13,6
Sodium (Na)	6,5
Sulphate (SO <sub>4</sub> )	48
Potassium (K)	1,0
Nitrate (NO <sub>3</sub> )	<0,3
Nitrite (NO <sub>2</sub> )	<0,005
Manganese (Mn)	<0.002
Uranium (U)	not provable