

Sodium (Na)

What is Sodium?

Sodium is the sixth most common element on Earth and makes up 2.6% of the Earth's crust. The sodium cation is ubiquitous in water and combines with the chloride anion to form the compound sodium chloride. This very soluble salt has been leached into the oceans over the lifetime of the planet, but many salt beds or 'lakes' are found where ancient seas have evaporated. It is also found in many minerals including cryolite, zeolite and sodalite.

Does Sodium have any additional names?

Natrium is an outdated name and where the chemical symbol Na came from.

What are the known health effects?

Sodium is a normal component of the body, and adequate levels of sodium are required for good health. Food is the main source of daily human exposure to sodium, primarily in the form of sodium chloride (salt). Very high oral doses of sodium chloride may cause nausea, vomiting, inflammation of the gastrointestinal tract, thirst, muscular twitching, convulsions, and possibly death. For long-term, lower-level exposures, the primary health effect of concern is increased blood pressure (hypertension).

How does exposure occur?

Food is the main source of daily exposure to sodium. Most of the sodium you consume is from packaged, processed, store-bought, and restaurant foods. Only a small amount is added during preparation and cooking or while eating fresh foods. Most water supplies contain some level of sodium. Sodium in drinking water is a minor contribution to a person's overall daily sodium intake.

Is this contaminant regulated?

USEPA has no limits for Sodium in drinking water. Sodium is a secondary contaminant by NJDEP which is a non-enforceable guideline for aesthetics. The recommended upper limit is 50 ppm; water supplied to Mount Laurel MUA customers is below the recommended limit, with a maximum detection of 36 ppm.

How can I reduce exposure?

Sodium in drinking water can be removed by reverse osmosis, distillation, and ion exchange.

Additional information for this fact sheet including the information referenced can be found at:

https://www.epa.gov/sites/production/files/2014-09/documents/support_cc1_sodium_dwreport.pdf