

Advice 01-2020 of the Scientific Committee established by the FASFC on a request for sectorial application for exemption from the legal requirement to use water of drinking water quality in the industrial production of dairy products.

Question

The Scientific Committee has been asked to assess the food safety risks posed by the use of "purified product water" and "treated groundwater" in the industrial production of dairy products.

"Purified product water" is the water that is obtained during various stages of the industrial processing of raw milk into dairy products and that is purified. Since milk naturally contains ammonium and highly biodegradable organic materials, such as lactose, this "purified product water" sometimes does not comply with the legal criteria for drinking water with regard to the indicator parameters "Ammonium" and "Oxidability".

"Treated groundwater" is the water that is obtained after softening of groundwater. Also "treated groundwater", which is used in the production process of the dairy industry, sometimes does not comply with the legal criteria for drinking water with regard to the indicator parameter "Sodium" and this because of its origin and/or the treatment this water undergoes before use.

In addition, it is also requested to evaluate the proposal for amendments to be introduced in the "Dairy Industry Self-Control System Guide (G-002)", so that any operator active in this sector can benefit from the sectorial exemption referred to in this opinion.

Method

The advice is based on expert opinion on the technical file introduced by the Belgian Dairy Industry Association.

Advice

In regard to the concentration of ammonium in "purified product water" and of sodium in "treated groundwater", the Scientific Committee is of the opinion that the proposal to increase the respective threshold values does not pose a food safety risk, as milk and milk products naturally contain a higher concentration of these elements.

Regarding the indicator parameter "Oxidability" in "purified product water", the Scientific Committee is of the opinion that this parameter should nevertheless be interpreted with due care. Given the origin of this water, this parameter indicates the presence of highly biodegradable residual organic matter. As a result, bacteria can grow and develop biofilms. This increases the risk of microbiological contamination of dairy products manufactured with this "purified product water". This point, including management measures to control this risk, should be further detailed in the "Dairy Industry Self-Control System Guide (G-002)".

Uncertainties

The uncertainties in this advice are those inherent to an expert opinion.

Conclusions

Taking into account the above-mentioned elements, the Scientific Committee is of the opinion that the use of "purified product water" and "treated groundwater", as foreseen in the technical file, do not compromise the food safety of the industrially manufactured dairy products provided that the self-checking of the companies applying those waters is reinforced in order to control the increased risk of microbiological contamination of dairy products.

The Scientific Committee is of the opinion that the proposed amendments to the "Dairy Industry Self-Control System Guide (G-002)" should be more detailed.

The full text is available on this website in dutch and in french.