ABSTRACT

The most popular non-alcoholic beverage of pupils at schools is definitely different types of sweetened drinks. Recently there is a discussed topic concerning about food and drink that pupils can buy at school. The former Minister of Education, Marcel Chládek, has forbidden the ban on sweet drinks and snach at schools. He got the prohibition against selling sweet drinks and snach at school trought Parliament. This decree was given the alternative name pamlsková and came into force on September 20, 2016 and schools must couly with it from January 1, 2017.(1)

To increase the attractiveness of effective teaching of chemismy and greater involvement of pupils in the subject, it is appropriate to connect the theoretical subjects taught with practical life. For this reason, it is appropriate to experiment with the use of substances commonly known to pupils, for example soft drinks.

This diploma thesis presents experiments with soft drinks made by three manufacturers and *Coca – Cola HBC Česká a Slovenská republika, PepsiCo CZ s.r.o.* and *Kofola ČeskoSlovensko a.s*. The interest is mainly concentrated on food additive substances. These are substances of both inorganic and organic chemistry. All the topics discussed are directly included in the basic curriculum documents of RVP G.

The experiments are designed to give students the ability to derive the composition of the five most commonly purchased wheeled drinks - Coca-Cola, Pepsi Cola, Kofola, Coca-Cola Zero and Pepsi Cola Max. It derives the different composition of these wheeled drinks and from the theory of individual substances perceive their consequences for the human organism.

Keywords:

experiments with wheat drinks, acidity regulators, sweeteners, methanol case, universal indicator