# Advertising in Chemistry: Rules for saving your life

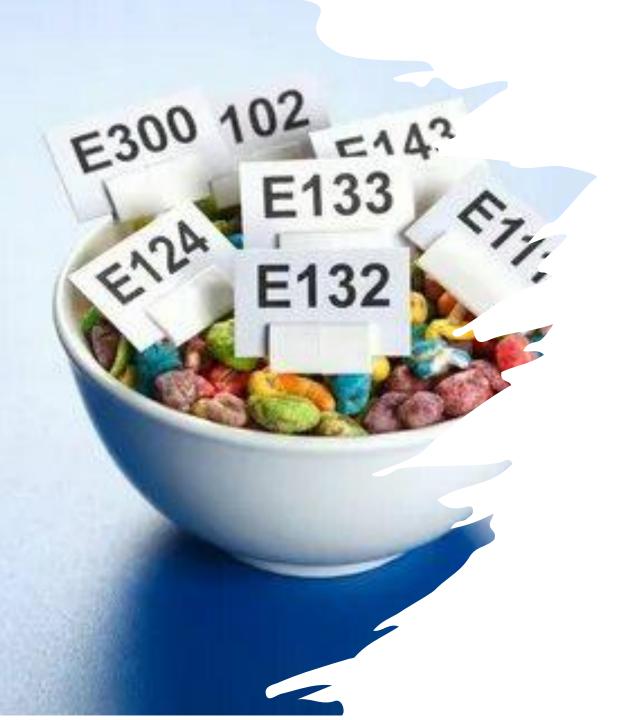
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How to choose the best product from everything offered on the market? How to detect liars and cheaters?



#### First rule

Pay attention to the letter E with an index indicating the types of food additives: emulsifiers, food additives, flavoring and flavoring substances.Formaldehyde (E240) has the most harmful effect on the body. Prohibited as particularly dangerous substances are also among the dyes: E121, E123 (found in sodas and bright varieties of ice cream).

List of dangerous and prohibited additives: E102, E104, E110, E120-124, E127-129, E131-133, E142, E151, E153-155, E173-175, E180; E214-217, E219, E226, E227, E230, E231, E233, E236-240, E249-252, E296, E320, E321, E620, E621, E627, E631, E635, E924a-b, E926, E951, E952, E954, E957

## Second rule

The second rule is to understand basic chemical processes. For example, take an advertisement. "Gum with xylitol and carbamide is a double protection against cavities. Let us analyze this statement. The destruction of tooth enamel can be prevented by neutralizing the lactic acid formed in the oral cavity with some substance that is safe for the body.



In this case, this role is performed by urea, or carbonic acid amide, carbamide  $-(NH_2)_2CO$ . Here the main role is played by the ability of urea to hydrolyze to form ammonium hydroxide, which neutralizes lactic acid:

$$(NH_2)_2CO + 3H_2O = CO_2 + 2NH_4OH$$

Xylitol is a sweet-tasting substance used as a sugar substitute for diabetic patients. By it is chemical nature, xylitol is a five-atom alcohol. When decomposed, it does not form lactic acid, that is, it is not an additional cause of the development of caries. However, at the same time, it does not protect. That is, it is better to pay attention to the presence of carbamide in the composition of gum.

## Third rule

The third rule is to identify the harm and benefit of the product. "Lay's chips - taste and quality are guaranteed. It is impossible to resist. Try it, they seem to have just been cooked". Our parents scolded us, and said that we eat this iunk food and have all the troubles with the stomach. But what if the parents were mistaken?







## Benefit

The benefit of chips is that potatoes with a low sugar content are used to make chips. Potatoes are heated to 80 degrees, cut into slices and fried in vegetable oil. Vegetable oils are sources of essential fatty acids-compounds for our body. They are necessary for growth, regulating blood pressure, and preventing the development of sclerosis.

## Harm

But still, the parents were right about the harm of chips. The gist is that, during the heat treatment of fats in the presence of atmospheric oxygen, a number of harmful compounds are formed, including acrylamide. In 1994, acrylamide was classified by World Health Organization experts as carcinogenic to humans.

## Conclusion

Summing up our speech, I would like to say that your health is your most expensive wealth, and it needs to be protected from harmful compounds that manufacturers like to use for cheaper production. You must analyze the advertisement and choose the best product. Our simple rules will help you expand your horizons and protect yourself from an inveracious information field.

## Thank you for your attention.