

# Are additives used in tobacco products harmless?



We all know that adding a pinch of this or a bit of that can turn a home-cooked dish from mundane into mouth-watering. Tobacco manufacturers likewise add extra ingredients to their products to make them more appealing. But, what if those additives are

harmful or could make people want more of them?

## → WHAT ARE TOBACCO ADDITIVES?

A tobacco additive is any substance, except water, added during the manufacturing of a tobacco product, including preservatives, humectants, flavours and processing aids. Today, approximately 600 substances are used as cigarette additives. The main additions to tobacco are sugars, which are also present naturally in tobacco leaves, and moisture retaining compounds (humectants), such as glycerol and propylene glycol. Other items on the list include preservatives and numerous flavourings. The latter include cocoa, liquorice, menthol and lactic acid, plant extracts and oils.

## → CAN TOBACCO ADDITIVES HAVE HARMFUL EFFECTS?

The most obvious harmful effect of tobacco additives is the intrinsic toxic capacity of the substance as such. They are generally used in very small amounts, therefore it is not expected they give short-term effects. In addition, their combustion products can be toxic, transforming tobacco smoke into an even more complex chemical mixture. This may further increase the carcinogenic and harmful effects of tobacco products. Harmful effects can be more subtle since research has shown that certain tobacco additives make cigarettes more appealing and that the use of fruit and candy flavours may favour smoking initiation in young people. It is also suggested that some additives decrease the harshness, increase the smoothness of the smoke or improve the smell or taste of the

product. Their addition may also mislead consumers to believe that a particular product is less harmful or has beneficial effects. Finally, additives that facilitate deeper inhalation or inhibit the metabolism of nicotine may enhance the addictiveness of nicotine indirectly.

## → IS THE EUROPEAN COMMISSION TAKING ANY ACTION?

Tobacco consumption is the single largest avoidable health risk in the European Union. It is the most significant cause of premature death in the EU, responsible for nearly 700 000 deaths every year. Around 50% of smokers die prematurely (on average 14 years earlier). That is why the European Commission has taken various tobacco control measures. These include the regulation of tobacco products on the EU market (e.g. packaging, labelling, ingredient regulation), advertising restrictions, creation of smoke-free environments, tax measures and activities against illicit trade as well as anti-smoking campaigns. The regulation of tobacco products is outlined in the revised Tobacco Products Directive (2014/40/EU) which is currently being implemented throughout the EU Member States.

Article 6 of the Tobacco Products Directive requires the European Commission to develop and update a priority list of at least 15 additives contained in cigarettes and roll-your-own tobacco by May 2016. The Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) was asked to help the Commission to identify additives that should be put on this list. The goal is to gather additional data on these additives for further assessment in order to take regulatory decisions.

## → WHAT CRITERIA DID THE SCENIHR USE TO IDENTIFY ADDITIVES?

The SCENIHR looked for additives that make products more toxic in unburnt form or after combustion, those resulting in a characterising flavour or encouraging deeper and longer inhalation, increasing the amount

of nicotine that gets into the body. Of particular concern are flavour additives, especially sweeteners, which give tobacco products a recognisable and distinct taste identity among the large variety of available brands.

## → WHAT IS THE CONCLUSION OF THIS OPINION?

The SCENIHR identified 48 single chemicals to be placed on the priority list. These compounds were selected because they have or are suspected to have one or more of the following properties:

- toxicity in unburned form (including carcinogenic, mutagenic or toxic for reproduction)
- facilitating inhalation or increasing nicotine uptake, which may contribute to addictiveness
- characterising flavour, one of the factors potentially contributing to attractiveness
- formation of any kind of toxic chemicals after combustion

The full list and details about how and why single compounds were selected for the priority list can be found in the Opinion.

This Opinion is the first one in a series of two on additives used in tobacco products. The second Opinion will address guidelines for the type and criteria for studies that should be requested from manufacturers to assess the relevance of additives.

This factsheet is based on the Opinion of the independent Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR): "Additives used in tobacco products".

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This opinion is available at:  
[http://ec.europa.eu/health/scientific\\_committees/emerging/opinions/index\\_en.htm](http://ec.europa.eu/health/scientific_committees/emerging/opinions/index_en.htm)