Acrylamide is a chemical that naturally forms in various food products during every-day high-temperature cooking. Since acrylamide was first identified in food in 2002, the food industry has worked closely with scientists and regulators to mitigate its formation.

When several foods are heated, the amino acids and sugars naturally present in these foods react together to determine the colour, flavour and texture of cooked foods. This also causes the browning of the food and produces acrylamide.

The 2015 European Food Safety Authority Opinion reconfirmed that based on animal studies, acrylamide potentially increases the risk of developing cancer for consumers in all age groups. Preventing acrylamide formation in food is impossible, however, we can look at ways to reduce acrylamide as much as possible.

The amount of acrylamide formation depends on 4 factors:

1. **Agriculture**
   - The type and quality of raw materials used in the production of a food product.
2. **Preparation**
   - The methods used to prepare and process food products, such as cooking temperature and time.
3. **Packaging**
   - The type of packaging used to store and transport food products.
4. **Cooking**
   - The temperature and duration of cooking.

Food businesses will continue to target the lowest achievable levels; going forward with this, is the most effective means of reducing exposure, rather than legally imposing maximum levels.

Reducing potential health risks

The food industry took action as soon as acrylamide was discovered, more than 14 years ago. An Acrylamide Toolbox for manufacturers has been created with the support of the European Commission and other national authorities. EFSA regards the toolbox as an important initiative to reduce acrylamide across food categories.

**FOOD BUSINESSES TAKE THE LEAD AND REDUCE ACRYLAMIDE IN OUR FOOD**

What can we do at home?

Follow the cooking temperature recommended, for French fries avoiding over-cooking and burning

In the manufacture of breakfast cereals, a key mitigation measure taken is to ensure an effective combination of temperature and/or heating times and cooling rates to produce a golden colour rather than burnt.

In the biscuit industry, the application of asparaginase is seen as a key mitigation measure for the sector as it has been shown to be effective to reduce acrylamide levels in biscuit products.

A dataset of over 40,000 samples of potato crisps from 20 European countries for the years 2002 to 2011 show that mean levels of acrylamide fell by 53%.

What is acrylamide?

Acrylamide is a chemical that naturally forms in some foods when they are baked, fried, or roasted at high cooking temperatures, above 120°C.

Acrylamide is not added to food from outside. It forms during the baking, frying, and roasting of food products such as fried potatoes, snacks, potato chips, toast, coffee, and tea, whether they are cooked at home, in restaurants or commercially.

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