

Acrylamide: Where are we today?

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Abstract

A consideration of the acrylamide problem under the angle of risk management in Germany is closely related with the concept of minimisation of acrylamide contents in food products. This minimisation concept is aimed at gradually reducing acrylamide levels in a wide range of food products as a part of preventive health protection of consumers. The concept has been agreed between the Federal Office of Consumer Protection and Food Safety (BVL), the Federal Ministry of Consumer Protection, Food and Agriculture (BMVEL), the competent authorities of the federal states and non-governmental organisations and has been pursued for one and a half year now. The concept is based on data compiled by food surveillance authorities of the federal states about acrylamide levels in various foods (5,400 sets currently). A calculated signal value is the core of the concept. This signal value is not a legal limit value, but just a measure for orientation. Signal values are re-calculated at regular intervals and have been calculated three times so far.

Signal values have been calculated for the following 13 groups of food products (26.11.2003):

<i>Food group</i>	<i>Signal value ($\mu\text{g}/\text{kg}$)</i>
Fine bakery ware of short pastry	575
Breakfast cereals	200
Coffee, roasted	370
Potato crisps	1000
Crispbread	610
French fries, prepared	570
Potato fritter, prepared	1000
Gingerbread and bakery ware containing gingerbread	1000
Thin almond biscuit	710
Children's biscuits	360
Diabetics' cakes and biscuits	1000
Coffee extract	1000
Coffee substitute	1000

In correspondence with the actual purpose of the minimisation concept, signal values will never be raised but lowered or at least maintained as the concept is pursued. If a signal value is exceeded, this will be reported to the food surveillance authority of the federal state where the producers concerned are based. The authority will start a dialogue with producers with the aim of acrylamide minimisation. Food with acrylamide contents of more than 1000 $\mu\text{g}/\text{kg}$ and from food groups for which no signal values have yet been set will automatically be included in this minimisation dialogue. The minimisation dialogue is intended to produce concrete measures for minimisation of acrylamide levels. A number of such measures are currently implemented to good end, including technical changes in production processes and recipes.

The success of the minimisation concept will be measured by the development of signal values. Signal values in the product groups potato chips, fine short pastry, and breakfast cereals have been reduced in the course of the minimisation concept, and current data indicate that we will be able to reduce more signal values in the next calculation. In pursuing the minimisation concept, we are guided by the principle that there is still much potential for reducing acrylamide levels in foods.