

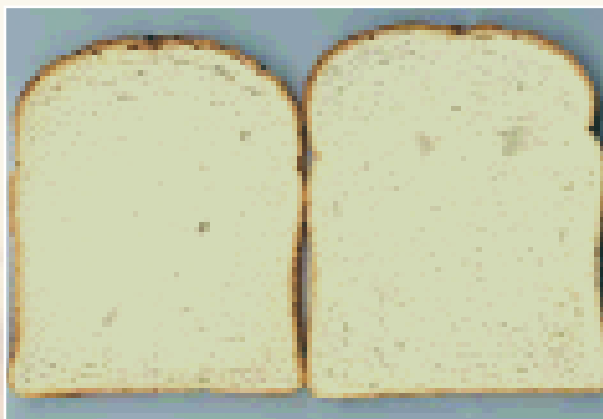
A C R Y L A M I D E

Acrylamide is a substance that is mainly formed in starchy food, during cooking at high temperatures, i.e. in the oven, on grill, or during frying.

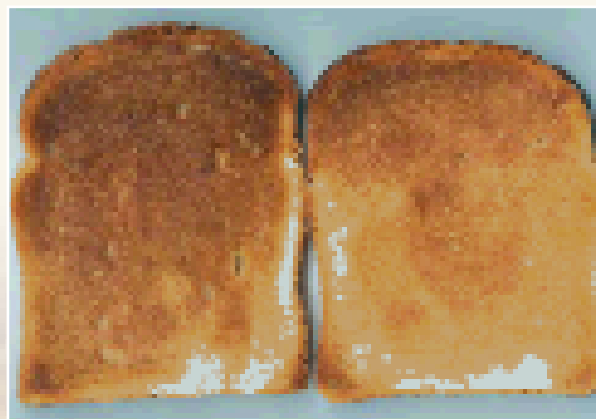
Acrylamide is a part of the human nutrition from the day man started to cook his food.

According to experts acrylamide may cause cancer in animals and humans also.

Experts recommend the reduction of acrylamide in food through proper cooking of food.



Acrylamide may occur in a big variety of food e.g. industry prepared foods, in the massive provision of food, in the house, in basic nutrition foodstuffs, such as bread, potatoes, as well as certain products, like chips, biscuits and coffee.



How acrylamide is formed in biscuits, toasts, bread products, corn flakes, potatoes and potatoes products

1. Acrylamide is formed through the asparagine reaction, a natural component of flour (amino acid), with reducing sugars, such as fructose and glucose.
2. Acrylamide is formed at temperature higher than 120°C.
3. The amount of acrylamide formed in food depends on:
 - Composition of food
 - Cooking time and temperature
 - The content of asparagine and reducing sugars in cereal seeds
4. Acrylamide occurs in the crust of bread.



How acrylamide formation reduction is achieved

- Avoid fructose and/ or glucose use/ addition in food.
- Avoid overcooking food.
- Check cooking time and temperature for bread.
Crust should not become too brown.
- Calcium salts may be added in bread, i.e. calcium carbonate and calcium sulphate.
- Potatoes strips should be boiled in hot water before frying.
- Fried potatoes should have a uniform light gold colour.
- Cooking at low temperatures may reduce the acrylamide levels in food.
- Prefer boiling of food than other ways of cooking.



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For further information you made also visit
the EU and EFSA website:

www.ec.europa.eu

www.efsa.europa.eu



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Ways of reducing
the formation of
acrylamide in food



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