

---

## ACRYLAMIDE

Acrylamide is a water soluble, unsaturated amide. Acrylamide has been characterized as “likely to be carcinogenic to humans”. Acrylamide is formed in foods during cooking processes, such as frying or baking, from a reaction between asparagine, an amino acid, and sugars, such as glucose and fructose. This reaction occurs primarily in plant-based foods (e.g., potatoes), cereal-based foods (e.g., cookies, crackers, breakfast cereals and toasted bread), and coffee. It is also found in cigarette smoke and is produced for use in plastics, grouts, water treatment products, and cosmetics.

In August 2012, Health Canada (HC) released a publication as part of the regular updates to the information on the website on acrylamide exposure assessment (<http://www.hc-sc.gc.ca/fn-an/securit/chem-chim/food-aliment/acrylamide/rev-eval-exposure-exposition-eng.php>). Levels for bread products are found on pages 13-15 and reflect 2009-10 sample collection. Levels in bread are directly related to the darkness of toasting the bread. HC has been monitoring acrylamide levels since 2009.

In March 2012, Health Canada amended the *Food and Drug Regulations* to permit the use of asparaginase, an enzyme that reduce the amount of the amino acid asparagine which reacts with carbohydrates during cooking to form acrylamide.

HC encourages industry to continue reduction efforts. Strategies to reduce acrylamide are available through resources such as the [Food Drink Europe Acrylamide Toolbox](#).

BAC continues to monitor this issue and promotes lightly toasted bread.