

# Harmful compounds might be formed when foods containing the sweetener sucralose are heated

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Sucralose is a sweetener authorized in the European Union as E 955. The German Federal Institute for Risk Assessment (BfR) has assessed the current data situation on the stability of sucralose and the formation of possibly harmful chlorinated compounds at high temperatures.

The available data show that harmful compounds, some with carcinogenic potential, might occur when Sucralose and especially Sucralose-containing foods such as canned vegetables or baked goods are heated. When Sucralose (E 955) is heated to temperatures higher than 120 degrees C a gradual—and with further continuously increasing temperature—decomposition and dechlorination of the sweetener occurs. Temperatures of between 120 degrees C and 150 degrees C are possible during industrial manufacturing and processing of foods, and are also reached in private households during cooking and baking of foods containing Sucralose. This may lead to the formation of chlorinated [organic](#)

[compounds](#) with a health-damaging potential, such as polychlorinated dibenzo-p-dioxins (PCDD), dibenzofurans (PCDF) and chloropropanols.

However, there are currently insufficient data to draw final conclusions. It is unclear on the one hand which toxic reaction products are generated in detail and in which quantities they are formed when Sucralose-containing foods are heated to temperatures above 120 degrees C on the other. Moreover, representative data on the levels in thus manufactured foods are required for exposure estimation within the scope of a [risk assessment](#).

The European Food Safety Authority (EFSA) is also currently dealing with Sucralose in the context of the re-assessment of authorised food additives in line with Regulation (EC) No. 1333/2008 and Regulation (EU) No. 257/2010. The result of the assessment is still pending. Until a conclusive risk assessment is available, the BfR recommends not to heat foods containing Sucralose to temperatures that occur during baking, deep-frying and roasting, or to add Sucralose only after heating. This applies to consumers as well as to commercial food manufacturers.

**More information:** [DOI: 10.17590/20190409-142644](#)

Provided by BfR Federal Institute for Risk Assessment

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