

From the Food Safety Committee

Notable Food Safety Events in the Brewing Industry

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Beer is a fermented beverage enjoyed by millions around the world. The MBAA Food Safety Committee publishes regular *Food Safety Bites* to update members on food safety issues related to the brewing industry. The focus of this *Bite* is notable food safety events in the brewing industry. After all, beer is food, and food safety hazards must be considered during manufacturing and distribution.

A food safety hazard is something that has the potential to cause harm to the consumer. Modern beer is generally safe for consumption by adults, but there are notable biological, chemical, and physical hazards that can be detrimental if consumed. Examples of common hazards include wild yeast (biological), CIP chemicals (chemical), and broken glass (physical).

Every year, hundreds of millions of beers are enjoyed by consumers without a problem. However, there are notable food safety events in modern brewery history that cannot be ignored. Below is a timeline with relatively recent examples of major food safety events in the brewing industry:

- **Nineteenth Century** – Strychnine, a bitter alkaloid, was occasionally used as a bittering agent by breweries to mimic hop bitterness. Today, it is sometimes used as a rodenticide (2,8).
- **Mid to late 1960s** – Cobalt in foam stabilizers caused cardiomyopathy in dozens of beer consumers in Quebec, Canada. Victims of cobalt poisoning from beer were identified in the United States as well (9,10).
- **1978** – New analytical methods detected high levels of NDMA (*N*-nitrosodimethylamine) in beer from around the world. NDMA and other related compounds can be formed during barley kilning. At the time, it was common to use direct flaming at high temperatures for kilning, but it resulted in high levels of NDMA. Beers with high levels of roasted/toasted/smoked malt (e.g., rauchbier) were highest in NDMA. Fortunately, the malt industry adopted indirect kilning methods, and the resulting NDMA levels were reduced. Modern beers usually exhibit less than 1 ppb total nitroso-compounds (below the level of detection) (11,12).
- **1995** – Anheuser-Busch recalled thousands of bottles of Bud Lite after a customer drank a bottle containing suspected cleaning solution (7).
- **2016** – Left Hand Brewing recalled over 20,000 cases of beer due to secondary fermentation from *Saccharomyces cerevisiae* var. *diastaticus* (13).

- **2017** – Sierra Nevada recalled 12-oz glass bottles from their Mills River, NC, facility because of a glass flaw in less than 0.01% of bottles (15).
- **2018** – Stella Artois recalled 11.2-oz glass bottles in the United States and Canada because there was a potential for glass particle inclusion. The company said it affected about 1% of glass bottles in North America (5).
- **2020** – Guinness recalled the entire launch of Guinness 0.0 after microbiological contamination was detected (1).
- **2020** – Backer Brewery in Brazil unintentionally packaged beer tainted with diethylene glycol (DEG). At least 10 people died and dozens more became ill from consuming the beer. A small leak in a tank caused the contamination with the toxic compound. The Brazilian government fined the brewery \$2.5 million. The company has since switched to a cooling system that uses food-grade media (4).

Please utilize the references below if you are interested in learning more. Additionally, If you are interested in beer and food safety, please visit the [MBAA Food Safety Committee page](#).

References

1. BBC News. 2020. [Guinness recalls alcohol-free beer just two weeks after launch](#). BBC. November 12.
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4. Food Safety News. 2022. [Brewery fined again in beer contamination case](#). Food Saf. News. June 1.
5. Food Safety News. 2018. [Stella Artois brand beer recalled for possible glass particles](#). Food Saf. News. April 3.
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Ask the Food Safety Team

Ever have a food safety question you don't know the answer to or for which you would like a second opinion? The Food Safety team is there to help! Just post your question in the "Ask the Brewmasters" section of the community site, and the Master Brewers Food Safety Committee will weigh in or get another expert's answer for you!

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15. Woodyard, C. 2017. [Sierra Nevada Brewing recalls bottled beer due to glass hazard](#). USA Today. January 22.