
Targeted Food Surveillance on Microbiological Quality of Bottled Water

Centre for Food Safety

Food and Environmental Hygiene Department

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Background

- Bottled water is frequently consumed by most people. There are various brands and different bottle volumes of bottled water available in the market. The hygienic situation of these products is of public concern.
- In view of this, the Centre for Food Safety (CFS) has conducted a targeted surveillance in the past few years to assess the microbiological quality of various kinds of bottled water.



Types of samples

- The CFS collected 60 samples from different locations including food factories, supermarkets, convenient stores, and other retail outlets from August to September this year.
- The project covered bottled water samples from local and overseas production plants, which included natural mineral water, distilled water & artificial mineralized water, etc.
- Samples also covered products of different bottle volumes, including carboys of water for water dispenser.

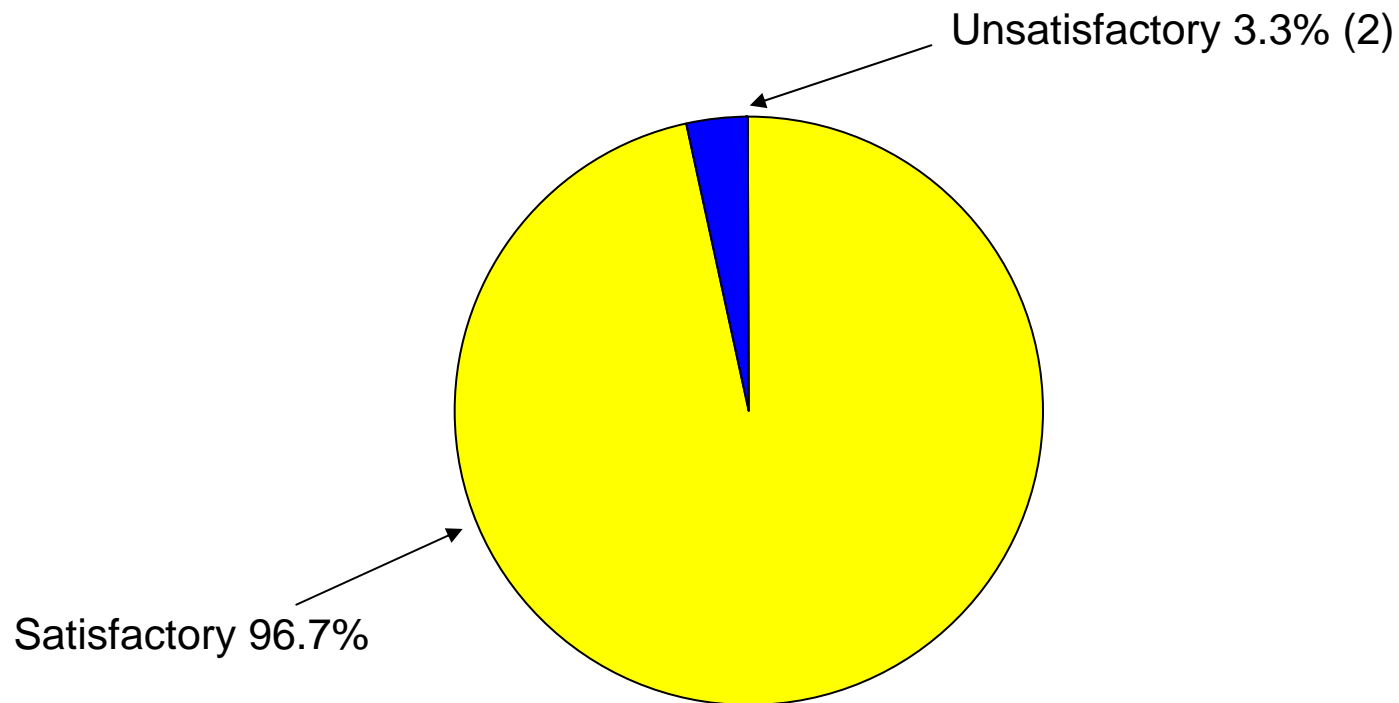
Types of tests and results

- The examinations conducted included:
 - Indicators of microbiological quality
 - *E.Coli*
 - Total coliform bacteria
 - Pathogens
 - Faecal streptococci
 - *Pseudomonas aeruginosa*
 - Sulphite-reducing anaerobes



Overall results

- There were 2 unsatisfactory samples. Overall satisfactory rate was 96.7%.



Unsatisfactory results

Tests for pathogens:

- The 2 unsatisfactory samples were shown below:

Sample	Unsatisfactory testing item	Result
Distilled water (3 Gallon)	<i>Pseudomonas aeruginosa</i>	31 per 250 ml ⁽¹⁾
Distilled water (3 Gallon)	<i>Pseudomonas aeruginosa</i>	69 per 250 ml ⁽¹⁾

(1) Exceeded the guideline limit of “not detected” in 250ml of sample

Follow-up actions

- Traced source of food items in question.
- Requested vendors to stop sale, recall and dispose of incriminated food items.
- Issued warning letters to vendors concerned.
- Took follow-up samples for analysis which showed satisfactory results.

Advice for the trade

- Ensure the products are fit for consumption and meet the microbiological criteria of the “Microbiological Guidelines for Ready-to-eat Food”.
- Bottled water manufacturers should maintain good environmental hygiene of the production plants, transport vehicles and warehouses. They should observe good hygienic practices along all processes of production, transport and storage.

Advice for consumers

- Buy bottled water from reliable shops.
- Check the expiry date and packing of bottled water. Do not buy and consume any bottled water which is beyond expiry date, or not sealed properly or with damaged package.
- Drink the bottled water as soon as possible after it is opened.

Advice for consumers (Cont'd)

- For people with lower immunity,
 - should choose bottled water undergone treatment process, for instance, distillation or reverse osmosis. They should consume drinking water or carboy of water for water dispenser which has been boiled.
 - should seek advice from medical professional if necessary.

- For people taking care of infant, they should note that
 - water from the water dispenser should also be boiled for preparing infant formula. The temperature of water used for preparation should not be lower than 70°C.
 - reconstituted powdered infant formula should be then cooled to feeding temperature and consumed immediately.
 - mineral water is not suitable for preparing infant formula.