

Bottling procedure for A LAONA WATER LTD PRODUCTS

We follow the International Standard Procedures for Food Safety – Hazardous Analysis and Critical Control Points (HACCP) ISO 22000:2005

Our services are as follows:

1. Water Collection

The water is collected in stainless steel tanks, pure from our natural spring that flows for centuries at the foothills of Laona Mountain Arsos Limassol. Laona spring is located away from residential area in scenery of magnificent natural beauty and wild flora in a big area of uncultivated land that's not sprayed nor fertilized

2. Chemical water composition

The chemical water composition remains pure as at the spring, we do not add the least quantity of any other chemical. The typical values are as follows:

Component	Typical values mg/L	Component	Typical Values mg/L
Calcium	55	Chloride	28
Magnesium	22	Sulphates	16
Sodium	25	Carbonates	0
Potassium	4	Bicarbonates	125
Nitrates	<1	PH	7.1

3. Filter

The water is bottled on the spot after filtration of 1 micron, with filters of very high credibility, like 99.999 per cent.

4. Bottle processing time

We follow a 20 station processing line, time delay is at 30 seconds each, so total time of washing and bottling 600 seconds.

The steps are as follows

1. Bottle Control

In this procedure, the bottles are controlled from trained staff for various defects and impurities. Any external impurities are cleaned by hand and if increased organic material is noticed the bottle is send to the system of extensive cleaning.

2. Internal air removal from bottle

The air contained in the bottle, after its circulation in various places could be infected with microbes that are not wanted to enter in and mingle with the air of the bottle washing machine. At this station the air in the bottle is removed and then filled with filtered sterilised air.

3. Maintenance of positive sterilised air pressure in bottling room

For further protection of the water during bottling, beyond the point of the actual bottling (filling the bottle with water) the whole bottling room is maintained sterilised with a continuous flow from outside inside of filtered sterilised air. Any room openings (doors, bottles entrance and exit etc.) allow to the sterilised air to flow from inside outside, forbidding to the exterior and most probably infected air to enter the bottling room.

4. Pre Wash

At this station, any heavy impurities of the bottles are cleaned allowing to the next washing stations to work better.

5. Draining

At this station we allow the water to drain from the bottle walls.

6. Bottle Wash first stage

Bottle is washed with special detergent internally and externally with nozzles for 30 seconds.

7. Bottle Wash second stage

Bottle is washed with special detergent internally and externally with nozzles for 30 seconds.

8. Bottle Wash third stage

Bottle is washed with special detergent internally and externally with nozzles for 30 seconds.

9. Bottle Wash fourth stage

Bottle washing with special detergent internally and externally with nozzles for 30 seconds is completed.

10. Draining and drying

At this station we allow the water to drain from the bottle walls and additionally the drying is completed with dry sterilised air blowing.

11. First rinse with antiseptic (acidic)

The bottle is rinsed with clean water that contains minimal quantity of antiseptic and special acid.

12. Second rinse with antiseptic (acidic)

The bottle is rinsed with clean water that contains minimal quantity of antiseptic and special acid.

13. First rinse with clean water

The bottle is rinsed with clean water

14. Second rinse with clean water

The bottle is rinsed with clean water.

15. Final Rinse

The bottle is rinsed with bottling water.

16. Draining

At this station we allow the water to drain from the bottle walls.

17. Bottling

The water is filled with natural water from the LAONA spring, while at this stage there is additional air filtering and sterilization.

18. Cup Placement

Placement of non-spill cup of high quality

19. Expiry Date printing

Electronic Printing on the bottle cup that shows production date, expiry date as well as bottle personal number.

20. Final Control

Our trained staff inspects the bottles for any defects or non-performance from all the above mentioned procedures

Other procedures

1. Pallet protection with nylon

The bottles are placed on pallets of 22 bottle capacity that is then wrapped with protective nylon.

2. Analysis

We conduct 5 chemical and one biological analysis at every bottling at 300 bottle intervals.

3. Product distribution after analysis results

The water is stored for 48 hours; the time needed to show the results of the biological analysis and then becomes available for sale if all the results are ok.

4. Bottle

The bottle is reused only up to 25 times. The bottle manufacturers advise reuse up to 50 times but for the further reduction of infection hazards and better appearance we at LAONA WATER choose to reuse the bottles only up to 25 times. The bottle is manufactured from special plastic Tritan Copolyester that is BPA-free and can be sterilized in 75° C.

5. Storage

Bottles are stored in a cool shady place away from sunlight.

6. Product Distribution

The bottled bottles are delivered to the client and the empty ones are taken in.

7. Traceability

For the best protection of our customers we keep an electronic form of traceability book so that we can respond immediately and trace any bottle holder should a problem arise. (Requirement from HACCP ISO 22000:2005)

8. Water Dispenser Maintenance Archive

We keep an electronic form of Coolers Maintenance to better schedule the next service. Some of the coolers according to their use require to be serviced prior to the 6 month period. With the mentioned archive we can trace them easier.

9. Guarantee of water Biological Quality

For our water we can guarantee that the total viable count TVC at 37°C cfu/ml is less than 4 instead of less than 20 like the EU Standard 80/777/E.E.C and modification 85/7/E.E.C and modification 96/70/E.C dictate.

The company has the right to change the bottling procedure for better quality of the water without any notice