

# Decapsulation of Brine Shrimp

Decapsulation is the removal of the dark, hard outer layer of the Artemia cysts. The shell of the cyst is called **chorion**.

Decapsulation is done for the following reasons:

- Disinfect the cysts from bacteria and other sources of infection.
- Remove shells so as to prevent digestion problems. Shells are indigestible and, if lodged in the gut, can cause death.
- Provide 100% edible product, inclusive of un-hatched cysts.
- Increase hatching rate and minimize hatching time

## Materials needed:

- Hatching vessel (2 litres/8 cups capacity)
- Bleach
- Cysts (10 grams = 1 well rounded tablespoon)
- Airline and air stone
- Vinegar
- Fine mesh sieve/screen, approximately 65 microns
- Storage container for decapped cysts

## Steps to Decapsulate:

- Measure or weigh the amount of eggs needed. Use 1 gram eggs per 10ml bleach.
- Measure bleach and place into the refrigerator to chill to roughly 5°C.
- Hydrate eggs under vigorous aeration for approximately 45 minutes to 1 hour in required volume of water.
- Remove air stone and pour the same volume of bleach into the container with the eggs.
- Using clean non-corrosive material, stir continuously for approximately 3-5 minutes or until a colour change has been observed. The cysts will transform from brown to grey to light orange in colour.
- Pour immediately into a sieve and rinse with water and vinegar so as to stop the reaction. Continue rinsing with water until all smell of bleach has disappeared.

Eggs are now decapsulated and may be hatched or stored in the refrigerator.

## Hatching



1. Mix required amount of salt water and pour into hatching jar. To make salt water, add 3 tablespoons sea salt to 2 litres water. (1 large soda bottle = 2 litre).
2. Place air hose into hatching jar under a light source/bulb. The cyst will require constant (24 hour) supply of bright light to hatch.
3. Measure the required amount of brine shrimp eggs (**6 grams to 1 litre**) and add cysts to the hatching jar.

4. Maintain vigorous aeration throughout the hatching period (18 hours) to keep the cyst moving.
5. After 18 hours, turn off the aeration and observe hatching jar to identify hatched Artemia.
6. Hold a torch to the side of jar to enhance visibility into the container and attract hatched nauplii artemia to the surface. This will cause debris and unhatched cysts to fall to the bottom of the jar.