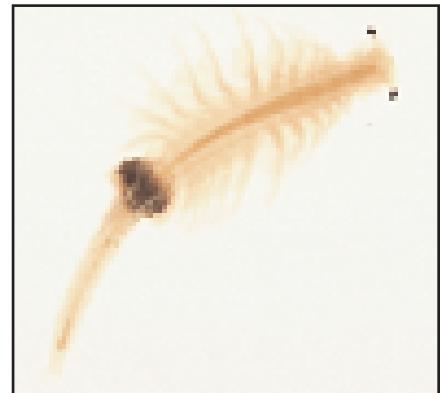


# Brine Shrimp

**Genus:** *Artemia*  
**Family:** Artemiidae  
**Order:** Anostraca  
**Class:** Branchiopoda  
**Phylum:** Arthropoda  
**Kingdom:** Animalia



## **Conditions for Customer Ownership**

We hold permits allowing us to transport these organisms. To access permit conditions, [click here](#).

**Never purchase living specimens without having a disposition strategy in place.**

There are currently no USDA permits required for this organism. In order to protect our environment, never release a live laboratory organism into the wild.

## **Primary Hazard Considerations**

Always wash your hands thoroughly before and after you handle your brine shrimp, its food, or anything it has touched.

## **Availability**

Brine shrimp are available year round. Brine shrimp will arrive in a plastic jar in salt water. We over-pack each order of brine shrimp. It is normal to have some deceased brine shrimp in the container. You will receive at least the quantity of live brine shrimp stated on the container. Brine shrimp can live in the shipping container for about 1–2 days. Brine shrimp will be about  $\frac{1}{2}$  inch long, and should be swimming in the container. If they are cold, allow them to warm to room temperature before determining if they are alive. (Brine shrimp are temperature tolerant and can survive in lower temperatures, but in doing so their metabolic rate drops.) Upon arrival you should place your brine shrimp into a new home.

## **Captive Care**

### **Habitat:**

- Brine shrimp Habitat: Brine shrimp are salt water aquatic organisms. They will grow in water that has 1–2 percent added salt (non- iodized, 1–2 gram/100 mL). The water should be de-chlorinated. De-chlorinate your water by using a commercial chemical designed to do so (such as [Stress Coat 21 W 2338](#)), or by leaving your water out in an open container for 48 hours.
- Optimal salinity is at a specific gravity of 1.024–1.028, or 35–40 ppt. This can be measured with a hydrometer. The optimal pH of the water is about 7.5–8. The temperature of the water should be about room temperature (range between 20°C–25°C or 68°F–79°F). A five-gallon [Aquarium Tank 21 W 5240](#) can hold up to 5,000 adult brine shrimp. To achieve this high density, aeration with the use of an [Air Pump 21 W 2982](#) and [Air Stones 21 W 2920](#) are required and a sump filtration system is recommended.
- Food: Brine shrimp are non-selective filter feeders so will eat many microorganisms. Common [Yeast 947 W 3404](#) is an excellent food source. It is best to add some water to the yeast to make a suspension and add 3–5 drops per five gallons of water to the surface of the water every 1–2 days. Another commercially available food is green algae. A species such as *Spirulina* is naturally found in bodies of salt water, and can be purchased as flake food from a pet store.

### **Care:**

- Your brine shrimp habitat should be cleaned of any dead shrimp weekly. There should be a 25% salt water change monthly. If you add water to your tank because of dehydration, do not use salt water. The salt does not leave the solution, and adding saltwater increases salinity. Check your salt with a hydrometer for specific gravity levels when adding any water to your tank.

## **Information**

- Reproduction: Sexual or Parthenogenic. Parthenogenetic populations are more common where habitat conditions are stable at lower salinity levels. In these populations, the majority of brine shrimp are females that produce unfertilized clones. These females are capable of either live birth or laying eggs. In populations that live in constantly changing habitats, reproduction is sexual and has a high probability of production of fertilized eggs encapsulated in cysts when salinity is high. These eggs can survive harsh conditions by going into diapause (vastly reduced metabolic rate) until conditions improve.

## **Life Cycle**

- Cyst stage can last indefinitely. Hydration should cause hatching within 48 hours. When the cyst breaks open, a larval nauplius emerges. The nauplius will molt about 15 times before becoming an adult in 2–3 weeks. The adult lives for another 4–5 weeks.

## **Wild Habitat**

- Brine shrimp occur worldwide in oceans and salt marshes; they are found in the natural salt lakes of Utah, California, and New Mexico as well as the oceans. They are one of the few multi-cellular organisms that have flourished in the Great Salt Lake. Brine shrimp are very important to the ecology of the lake, serving as a major source of food for migratory birds.

## **Special Notes**

- Brine shrimp are also known as “sea monkeys.”
- Brine shrimp are rich in protein offering a great source of food for both marine and freshwater animals such as fish, hydra, axolotls, newts, and more.

## **Disposition**

Please dispose of excess living material in a manner to prevent spread into the environment. Consult with your schools to identify their preferred methods of disposal. You can safely use one of the following methods:

- Treat culture with a 10% bleach solution for 24 hours (1 part bleach to 9 parts culture medium or water culture medium removed). Then rinse bleach solution down the drain with water until you can no longer smell bleach. Rinse remaining materials and containers with water and dispose of them in a general garbage container.
- Carefully wrap specimens and their containers in a biohazard bag (without containing anything sharp that might puncture the bag) and tie closed (a twist tie works well). Autoclave the bag for 30 minutes at 121°C and at a pressure of 15 lbs. per square inch. Dispose of autoclaved bag as your school recommends.