Algae

Carolina™ CareSheet

Immediate care and handling

As soon as your cultures arrive, open the shipping container, remove the culture tubes or jars, and inspect your algae. Once you have verified that the shipment is okay, loosen the lids on the cultures. Place culture tubes in racks or beakers to keep them upright. Maintain at normal room temperature and light. The cultures are ready to use when received. Although most cultures will last 2 to 3 weeks with this minimal care, for best results, use them within 2 to 3 days. The longer you delay, the greater the likelihood the cultures will degrade.

Culturing

Our catalog and online listings give the culture media that we use for each type of algae and their light requirements. For most algae, culturing is best done using fluorescent lights, either cool white or full spectrum, on a 16-hour light/8-hour dark cycle. Place the lights about 46 cm (18”) above the cultures to ensure sufficient light intensity. Red algae and cyanobacteria (blue-green algae) require less light and should be cultured at normal room lighting. See our *Carolina™ Culturing Algae Manual*, included free with your order, for more specific methods.

Disposing of cultures

The following is for your information only. It is your responsibility to know and follow the regulations and procedures for disposal of organisms as specified by your lab protocols, school district, or other responsible authority. None of the following should replace, negate, or modify such local regulations in any way. You can add freshwater algae cultures remaining after lab activities to an aquarium established for this purpose. See our “General Guidelines on Living Materials from Carolina Biological Supply Company” on Carolina.com for details.

The chlorine found in most municipal tap water kills filamentous and unicellular microalgae and small colonial forms such as *Volvox*. Pour these cultures down a sink followed by a flush with at least 1 gallon of water. If your tap water is from a well and not chlorinated, add 1 mL household bleach or 1 mL of isopropyl alcohol (rubbing alcohol) to the culture and let stand for 30 minutes before flushing down a sink. Macroalgae can clog drains. For these algae, either freeze or cover with household bleach or isopropyl alcohol for 30 minutes, then drain, and dispose of in sealed plastic bags.

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FAQs

How much algae do I receive in a culture?
Most of our cultures ship in culture tubes that contain roughly 18–20 mL of culture water. We do not quantify the mass of algae in the tube or the cell density other than to assure you that 30 students can take a sample, place it on a microscope slide, and observe the algae under magnification.

Will the algae last longer if I place the cultures in a refrigerator?
We don't recommend refrigeration or rapid temperature changes.

My cultures arrived Friday and I need them for class Monday. Will they be okay?
Remove the cultures from their shipping container and care for them as directed above. The worst thing to do is leave them in the unopened shipping container.

Can I use tap water with my algae cultures?
Tap water may contain metal ions that are detrimental to algal growth. Use aged spring or pond water for freshwater algae and natural seawater for marine forms.

What is the difference between item #152069 *Chlorella* and #152075 *Chlorella*?
Item #152075 is *Chlorella vulgaris* growing on an agar medium; it is bacteria-free. For most classroom uses, you must transfer it to liquid media. Item #152069 is *Chlorella* growing in liquid medium. We do not have a species identification for this *Chlorella*. Unless you need to know the species, item #152069 is the *Chlorella* we recommend for most labs.

How do I transfer a bacteria-free culture to liquid?
Flood the surface of the agar with liquid medium, then use a pipet with a bulb to direct a stream of medium onto the surface of the agar, lifting the cells from the agar. Draw up the liquid and expel it a few times to break up the clumps of cells before transferring into a culture vessel with fresh medium. Another method is to transfer the cells with an inoculating loop much as you would transfer a bacterial culture.

Problems?

We hope not, but if so, contact us. We want you to have a good experience.

Orders and replacements: 800.334.5551, then select Customer Service.
Technical support and questions: caresheets@carolina.com

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