Despite what many of us might think, no substance is inherently safe, or unsafe for that matter. Any substance—even the most innocuous—can be harmful if exposure is high enough. The critical factor is not how toxic a substance is but how risky it is to use. Most pesticides are designed to be toxic to the targeted pest—whether the target is an insect, weed, plant disease, or bacteria. (Household disinfectants are pesticides, too.) Pesticides are also designed to be safe to the people who use them, if you follow common-sense procedures.

• Before using a pesticide, you should read the entire label. Read the label before you buy a product, again before you mix it, before you apply it, before you store it, and before you throw it away. The directions on the label are there for a very good reason: to help you get maximum benefits with minimum risk. But these benefits depend on proper use of the product. Using pesticides differently than the label directions is not only against the law, it is also unwise. You lose the safety margin built into the use instructions on the label.

• All pesticides legally marketed in the U.S. must have a label approved by the U.S. Environmental Protection Agency (U.S. EPA). Check the label to make sure it has a U.S. EPA registration number.

• Follow use instructions precisely, including mixing and dilution directions. Take the time to work out the conversion arithmetic if your application equipment is a different size from the example on the label.
Cookbooks and dictionaries are good sources of common equivalents (for example, one tablespoon equals three teaspoons). You should use only the proportions the label says, at the season and under the conditions specified, and for the purpose listed. Don’t assume that if a little is good, a lot is better. Using more may make some products less effective. Worse, you may harm yourself, others, or whatever you are trying to protect.

- If mixing or dilution is required, you should do it outside or in a well-ventilated area. Mix only what you need. Keep your children and pets away. Try ready-to-use products to avoid the hassles of mixing.
- You should wear the protective clothing the label requires; for example, long sleeves and long pants, hats, or goggles.
- If a spill occurs, you should clean it up promptly. Don’t wash it away – runoff can damage non-target plants, or pollute surface and ground water. Instead, you can sprinkle it with sawdust or kitty litter, sweep it into a plastic garbage bag and dispose with the trash. If you spill it on yourself, wash it off immediately with soap and water, or as the package label instructs you. Before using a pesticide product, you should know what to do in case of accidental poisoning.
- You should remove pets (including birds and fish) and toys from the area to be treated. Remove food, dishes, pots, and pans from the room before treating kitchen cabinets. You should wait at least as long as the product label tells you to before refilling the cabinets. Use only products labeled for use in food preparation areas.
- Most surface sprays should be applied only to limited areas where they are needed. Don’t treat entire floors, walls, or ceilings. If a product is labeled for “cracks and crevices,” you should treat only those areas.
- You should allow adequate ventilation when applying pesticides indoors. Stay away from treated areas for at least the length of time the label says. If you spray outdoors, close the windows of your home.
- You should not spray or dust outdoors on a windy day.
- You shouldn’t smoke while applying pesticides. You could easily carry traces of the pesticide from hand to mouth. Also, some products are flammable.
- You should always store pesticides in their original containers. Don’t transfer pesticides to soft drink bottles or other containers that children may associate with something to eat or drink. You should not reuse an empty pesticide container.
- To ensure thorough cleaning, you should rinse your tools and equipment three times, dumping the rinse water into a bucket. Then you should pour it back into the pesticide sprayer and apply it according to the product directions.

If you have any questions about how to use, store, or dispose of pesticides, you can call your county agricultural commissioner, who enforces pesticide laws and regulations locally. Look for the county agricultural commissioner’s phone number in your local white pages, under county government headings, or call toll-free 1-877-PestLine to get the number and be connected with your commissioner’s office. You can also get the number on DPR’s Web site, www.cdpr.ca.gov, where you can find more tips and information.