Using Disinfectants, Sanitizers, Medical Sterilants, and Other Antimicrobials in the Workplace

What are Antimicrobial Pesticides?

A pesticide is any substance intended to prevent, destroy, repel, or mitigate a pest. Viruses, bacteria, or other microorganisms are pests and the products used to prevent them from causing harm are antimicrobial pesticides. These pests may cause damage or economic loss, or transmit or cause disease.

Disinfectants, medical sterilants, sanitizers, and other “antibacterial” products are antimicrobial pesticides because they are designed to destroy and prevent bacteria and other microorganisms in the settings where they are used.

Fungicides (which target mold, mildew, and other similar organisms) and algicides (which control algae in spas, swimming pools, lakes, canals, and water used industrially or stored) are also antimicrobial pesticides.

Using Antimicrobial Pesticides at Work

State law requires employers to maintain a safe workplace. Chemicals in pesticide products pose a wide range of health and safety hazards. Workers have a right to know what chemicals are used at their workplace. Cal/OSHA law requires that information about these hazards and associated protective measures be communicated to workers.

Many employers and employees are not aware that products they commonly use in their workplaces are antimicrobial pesticides.

Over half of work-related pesticide illnesses reported each year in California involve use of an antimicrobial pesticide. Common injuries related to use of an antimicrobial pesticide include an employee accidentally splashing bleach or another antimicrobial pesticide into his or her eyes, developing a rash on unprotected skin, or suffering respiratory problems from inhaling fumes. However, more-serious injuries can occur; such as those resulting from breathing the toxic gas released when ammonia is mixed with bleach. Repeated over-exposure to antimicrobial pesticides can also lead to chronic health problems.

The Label is the Law

Pesticide labels are not advisory—they have the force of law. It is illegal to deviate from a pesticide label’s instructions. Failure to follow a pesticide label could result in fines and other penalties.

The product label provides instructions that inform you and your employees about how to use the pesticide effectively, safely, and legally. The label will detail how to apply the pesticide, what safety precautions need to be taken, and if protective clothing or equipment (such as gloves, goggles, or breathing masks) needs to be worn. The label also identifies the pesticide’s active ingredient so medical personnel can provide proper care if an accident or illness occurs.

Copies of this handout are available from DPR by calling 916-445-3974. They can also be downloaded from DPR’s website: http://cdpr.ca.gov/docs/dept/factshts/directory.htm.
Worker Protection Laws

The California Food and Agricultural Code and the California Labor Code, and their respective regulations, outline laws designed to protect California’s workers from pesticide illnesses and injuries. Cal/OSHA’s Hazard Communication Standard (T8 §5194) requires that information about these hazards and associated protective measures be communicated to workers. Worker training must be provided BEFORE the worker begins using the chemical. Employers also must provide any required protective clothing or equipment and must keep all protective equipment in good condition and ensure employees properly use it when it is required.

Employers are also required to post pesticide safety information where the employee usually starts the workday. They may choose to use one of the Department of Pesticide Regulation (DPR) Pesticide Safety Information Series handouts: Safety Rules for Pesticide Handlers in Non-Agricultural Settings (leaflet N-8) or Safety Rules for Pesticide Handlers on Farms (A-8). http://cdpr.ca.gov/docs/whs/psisenglish.htm.

Finally, employers must inform employees that they have the right to:

- Know what pesticides they are using or may be exposed to and review Safety Data Sheets (SDSs). SDSs are available from the vendor of the product and are required to be maintained by the employer.
- File confidential complaints about unsafe work conditions without being subject to retaliation by the employer and have those complaints promptly investigated.
- Emergency medical care.

Agencies That Enforce the Laws

The DPR and County Agricultural Commissioner (CAC) offices (in San Francisco, the Department of Public Health) are responsible for enforcing California’s pesticide use laws. This includes ensuring employers and employees follow pesticide label instructions and other worker protection laws.

California’s pesticide use laws are located in Food and Agricultural Code Divisions 6 and 7 and the California Code of Regulations (CCR), Title 3. http://www.cdpr.ca.gov/docs/legbills/laws_regulations.htm.

Cal/OSHA requires safe and healthful working conditions including protections against chemicals and pesticide exposures for all California workers. Cal/OSHA’s workplace safety requirements are in the California Code of Regulations (CCR), Title 8. They can be downloaded from Cal/OSHA’s website at: www.dir.ca.gov/counters/t8index.htm.


DPR and CACs can enforce California’s pesticide labeling requirements and worker protection standards wherever pesticides are used. However, Cal/OSHA also has authority to enforce its workplace safety requirements to protect California’s workers.

If Illness or Injury Occurs

In the event of an emergency, employers are responsible for providing prompt medical attention. Employers must inform their employees of the name and location of places where medical care is available.

Physicians are required to report pesticide-related injury or illnesses to the county health officer, who in turn reports the illness to the CAC for investigation. CAC staff investigate pesticide-related illnesses and injuries. They may visit workplaces, and interview employers and employees. Should the CAC find a violation of pesticide laws or regulations, they can levy fines and other penalties.

For more information about your health and safety rights, go to Cal/OSHA’s homepage at: www.dir.ca.gov/DOSH/dosh1.html. You can also call (866) 924-9757 (press or say “2” or “Cal OSHA,” then enter or say your zip code to find the district office serving your job location. Employers must immediately report to Cal/OSHA any work related death or serious injury or illness.

For questions concerning injury or illness, call the California Poison Control Hotline at: (800) 222-1222.

DPR’s Pesticide Enforcement Branch: (916) 324-4100.

What employers need to know

The top incident settings for non-agricultural use of antimicrobials at work, from 2005 to 2014, were:

- 28% Service/Retail/Wholesale Establishments.
- 23% Hospital/Medical and Residential Institutions.
- 15% Food Processing Facilities.
- 12% Schools and Offices/Businesses.

Did you know?

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