Safer and Effective Cockroach Control for Buses and Trains

Cockroaches can be a big problem on buses and trains, but the pesticides used to treat them can cause worker illness.

Spraying or fogging pesticides can cause worker illness

Pesticides used to treat cockroaches contain chemicals that can make people sick if they breathe in, touch, or swallow them. These pesticides are often applied as a fog, aerosol, or small mist particles. If pesticides are in the air when people enter the area, they can be breathed in and cause harm. Some of the chemicals used, such as pyrethrins and tetramethrin, can cause asthma even if used in very small amounts.

Change the conditions that attract cockroaches

Remove what attracts cockroaches—as often as possible clean up crumbs, food, wrappers, and standing water. Periodically deep clean to remove food from crevices.

Avoid pesticide spraying and fogging

- Pesticides applied using sprayers or foggers may reduce cockroach populations temporarily, but other, safer alternatives provide more effective long-term control. With spraying and fogging, often cockroaches will scatter, hide, and come out later.
- In addition to the health risks pesticides pose to people, routine spraying or fogging of pesticides can cause cockroaches to become resistant—the pesticides will no longer kill them.
- Avoid using foggers, aerosol cans, or ultra-low volume fogging machines. The small particles these produce stay in the air longer.

PREVENTION POINTS

- Remove what attracts cockroaches: food, water, and shelter
- Avoid spraying and fogging
- Use non-chemical and gel bait treatments

Municipal bus agencies have followed these prevention points to successfully control cockroaches.

Use safer AND more effective non-chemical and gel bait treatments

- Hire a Pest Control Operator (PCO) certified in safer treatment methods (also known as Integrated Pest Management or IPM) to monitor and address a cockroach problem.
  - The PCO should have a variety of methods for safely flushing out and removing cockroaches such as using compressed air, hair dryers, steam, and bug vacuums. Chemical flushing agents should not be used. The remaining cockroaches can be killed with gel bait.
- If the PCO decides that a pesticide application is necessary:
  - The safest and least toxic products should be used, such as gel baits and bait stations, and only in cracks, crevices, and other out-of-the-way areas.
  - When baits are needed, they should be applied at least quarterly to effectively control cockroach populations.
  - Products that target only insects, like insect growth regulators, are generally a safer choice.
  - If spraying is ever done, at a minimum, follow the pesticide label regarding ventilation and waiting time before anyone can re-enter the vehicle. For added safety, increase the waiting time and use a fan or other active ventilation.

CASE STUDY

A bus driver was driving a bus that had recently been sprayed with pesticide to kill cockroaches. The driver developed a cough, trouble breathing, wheezing, chest pain, burning eyes, and blurred vision. The passengers got off the bus because they also had trouble breathing.

Safer pest control on buses prevents pesticide illness

SCHOOL BUSES

Whether they are run by the school district or a contractor, school buses fall under the requirements of the California Healthy Schools Act (HSA) and its requirements for IPM. School districts are responsible for ensuring that pest control on buses complies with the HSA.

CASE STUDY

A train operator entered a train car and saw an empty fogger ("bug bomb") in the car. The fogger had been set off 90 minutes earlier. He left the car right away but still had an allergic skin reaction.

Protecting employees

- Employers must give employees health and safety information about the pesticides to which they may be exposed. This includes employees who will enter a sprayed or fogged vehicle. Provide the Safety Data Sheet (SDS) and other information about the pesticide(s).
- Follow Cal/OSHA requirements for educating employees about chemical hazards:
  www.dir.ca.gov/title8/5194.html
  www.dir.ca.gov/title8/3203.html
- Have an emergency response plan that says what to do if employees become ill from chemical exposure. It should include the following:
  - If someone becomes ill, call 9-1-1 and provide the name of the pesticide involved. Have the SDS on hand to share with medical providers. Include as much information as possible about what happened and the chemicals used.
  - Any employee you suspect is made ill from pesticides should be transported for medical care; don't let them drive themselves.
- Report possible pesticide misuse by calling the County Agricultural Commissioner 1-87PestLine (1-877-378-5463).

Gel baits are effective for controlling cockroaches

RESOURCES

University of California IPM Program general guide for managing cockroaches: http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7467.html

California Schools Integrated Pest Management, including information about the HSA
http://apps.cdpr.ca.gov/schoolipm/

Finding Pest Control Operators certified for use of IPM:

EcoWise Certified
www.ecowisecertified.org

Green Shield Certified
www.greenshieldcertified.org

GreenPro Certified
www.certifiedgreenpro.org

ABOUT OPIPP

The Occupational Pesticide Illness Prevention Program (OPIPP) tracks and investigates cases of work-related pesticide illness and makes prevention recommendations for employers and workers.

For more information, call OPIPP: 1-800-970-6680 (toll-free to CA callers) or go to www.cdph.ca.gov/programs/ohsep/Pages/Pesticide.aspx.

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SAMPLE LANGUAGE FOR PEST CONTROL CONTRACTS OR PURCHASE ORDERS

"The methods of control and application shall minimize exposure of the Motor Coach Operators and passengers to the applied pesticides. Examples include solid baits, gels, traps, and insect growth regulators. No liquid spray or fogging will be allowed unless specifically approved by the Integrated Pest Management (IPM) Coordinator and the Transit Maintenance Manager."