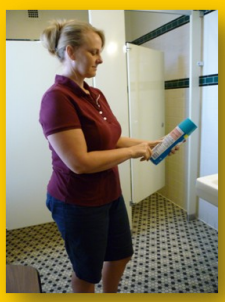
Antimicrobial Pesticides

Guam Environmental Protection Agency, Pesticide Enforcement Program

WHAT YOU NEED TO KNOW

- Make sure than any antimicrobial pesticide you purchased is registered with U.S. EPA for your intended use
- Follow all of the directions of the pesticide label
- Never mix antimicrobial pesticides with other antimicrobials or any other chemicals unless instructed to do so on the product label. For example, mixing bleach with other cleaning products could result in harmful acids and poisonous gases
- Ensure that everyone who will use antimicrobials is provided with, uses, and maintains the personal protective equipment that is required on the pesticide label
- If there is an accident or illness that resulted from exposure to antimicrobial, get immediate medical attention, follow the first aid information on the label and ensure that medical personnel are aware of what product and ingredients were used



WHAT ARE ANTIMICROBIAL PESTICIDES?

Under the Guam Pesticides Act, the Guam Pesticides Regulation and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), a pesticide is any substance or mixture of substances designed to prevent, repel, or mitigate any pest.

Under Guam and U.S. laws, the term, "pesticide," applies to many substances, including antimicrobial pesticides

To ensure the protection of public health, Guam EPA and U.S. EPA regulate these products.

To be sold and distributed legally in the U.S., all pesticides, including antimicrobials must be registered with US EPA.

Antimicrobial pesticides are products intended to be used to:

A.) disinfect, sanitize, reduce or mitigate growth or development of microbial organisms or,

B.) protect inanimate objects, industrial processes or systems, surfaces, water or other chemical substances from contamination, fouling or deterioration caused by bacteria, viruses, fungi, protozoa, algae or slime.

Antimicrobial pesticides come in a wide variety of forms, including toilet bowl sanitizers, swimming pool chemicals, and bleach.

These products can be used to treat surfaces, air and water to prevent, reduce or kill dangerous harmful and non-harmful bacteria, fungi, algae and viruses.

Antimicrobial pesticides are categorized based on the type of microbial pest they are designed to reduce or eliminate.

Some products are intended to kill certain algae and odor-causing bacteria that are generally not a threat to human health.

Other antimicrobials are designed to sanitize, disinfect or sterilize surfaces against microbes that are harmful to human health.

There are 3 types of "public health" antimicrobial pesticides

Sanitizers

Sanitizers are used to **reduce** microorganisms from inanimate surfaces to levels considered safe as determined by public health codes or regulations. Sanitizers are the weakest type of public-health antimicrobials. Some sanitizers can be used for areas where food products are placed and stored, and other sanitizers can only be used for non-food contact surfaces like carpets or in air.

Disinfectants

Disinfectants are products used on hard inanimate surfaces and objects to **destroy or inactivate** the growth of bacteria and fungi. Some disinfectants target specific viruses. Disinfectants are used in medical and residential settings and are used to disinfect hard, non-porous surfaces such as linens, toilets, bathtubs, kitchen floors, and other hard surfaces.

Sterilizers

Sterilizers are products used to **destroy or eliminated** all forms of microbial life including fungi, viruses, and all forms of bacteria and their spores. They are the strongest type of public health antimicrobials. Sterilizers are generally used in medical and research settings where the presence of microbes must be prevented as much as possible.

The Guam Pesticide Act

The Guam Pesticide Act §15602 was written to protect employees, customers, the general public and the environment are protected from exposure to pesticides.

People who use antimicrobial pesticides at work, need to attend a basic training course that includes details on how to handle the products safely.

Basic Training – A (BT- A), for example, is the training that is required for paid housekeeping employees including, but not limited to, cleaners and janitors in hotels, hospitals, apartment complexes or condominium complexes, nursing homes, or other non-private residences, and who apply general-use antibacterial, antimicrobials, sanitizers, fungicides, disinfectants and other pesticides as part of their occupational duties.

Anyone who uses restricted-use pesticides must complete additional training and be certified to use those types of pesticides.

Questions about Antimicrobial Pesticides?

Contact:

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Phone: 671-475-1658/9
Fax: 671-475-8007

EPA's Requirements for Manufacturers

When manufacturers make claims to kill, control, or reduce antimicrobial pests, they are required by U.S. EPA to:

1.) Submit scientific data about the toxicity, chemistry and effectiveness of the product

2.) Submit a complete product label that includes important information such as:

- A statement showing the active ingredient
- A "signal word" showing the general level of acute hazard (Danger, Warning or Caution) associated with the product
- Safety precautions for protecting the user, bystanders, and the environment
- A complete set of use directions including how to properly handle, mix and apply the product, and how to store and dispose of leftover product and the container

3.) First aid instructions and important contact information in case of accidental exposure or emergencies

Health Hazards Associated with Antimicrobial Exposure

Sodium and calcium hypochlorite, also known as "bleach" were first registered for use as pesticides in 1957.

Repeated overexposure to antimicrobial pesticides can cause chronic health problems for the people who use them. Serious illnesses can occur from inappropriately mixing different products (such as ammonia and bleach) to make a toxic gas.

The types of health hazards that can result from exposure to antimicrobial pesticides include:

- Severe eye and vision damage resulting from the product splashing into a person's eye
- Rash after the product has come into contact with a person's unprotected skin
- Respiratory problems from inhaling fumes

Using antimicrobial pesticides (and any other pesticides) incorrectly can put users at risk.

Even though products like bleach are commonly known and used, many of them can cause severe injury if used improperly. In addition, failure to follow instructions on product labels may result in failure to achieve adequate reduction or elimination of disease-causing microorganisms.

To ensure that these products are used safely and effectively, anyone who uses antimicrobial pesticides is required by law to follow all of the safety precautions and use directions on the product label.

USE THE RIGHT BLEACH

Bleach products that are not specifically identified as disinfectants will not include the label instructions that are necessary to achieve adequate disinfection or to protect users, bystanders and the environment.

For disinfection, use only bleach products and other disinfectants that are registered by the U.S. EPA.

Look for the EPA Registration Number on the product label.