

# PermaSease<sup>®</sup> 4-4

ADAPCO<sup>®</sup> is pleased to provide a full portfolio of permethrin technologies. As an important aspect of public health and mosquito control programs, PermaSease uses the pyrethroid permethrin as the active ingredient. PermaSease provides quick, consistent knockdown and kill of mosquitoes.

Flexibility and adaptability make PermaSease 4-4 a straightforward choice for mosquito control. PermaSease 4-4 is a ready-to-use formulation that can be applied undiluted or diluted with oil. It is labeled for ground (ULV or thermal), aerial, or barrier application for the control of mosquitoes and other flies of nuisance or public health importance.

PermaSease 4-4 can be applied to a wide range of areas including residential, industrial, commercial, urban, and recreational areas. A rate of up to 0.007 pounds of permethrin per acre can be used for ULV applications.

## Features and Benefits

- A 4.6% permethrin and 4.6% PBO formulation
- Formulation allows the product to be applied undiluted or diluted with oil
- Labeled for ground, aerial, or barrier applications
- Rapid knockdown of adult mosquitoes
- Labeled for use against mosquitoes, black flies, midges, and other flies of nuisance or public health importance
- Able to be used in a wide variety of areas including residential, industrial, commercial, urban, and recreational areas
- Application rates up to 0.007 pounds of permethrin per acre



## Mode of Action

Permethrin is a type I pyrethroid (group 3A). Pyrethroids are sodium channel modulators and impact the nervous system by disrupting the normal activity of the voltage-gated sodium channel in the insect. This causes overexcitation and eventually death in the insect.

Piperonyl butoxide, or PBO, is a synergist and is not designed to kill insects on its own. When PBO is coupled with a pyrethroid, like permethrin, it decreases the ability of the mosquito to detoxify the permethrin, which can increase the efficacy of the product.