Just the Facts...

# Environmental Pesticides - Individual

PESTICIDES PROTECT US FROM INSECTS, TICKS, RODENTS AND POISIONOUS PLANTS WHICH MAY INFLICT INJURY OR SPREAD DISEASE

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| **GENERAL INFORMATION** | A pesticide is a liquid, granule or gas applied to control unwanted insects, plants or animals in a given area. The term "pesticide" includes insecticides, herbicides, fungicides, rodenticides and disinfectants. When most people use the term pesticide they are usually referring to an insecticide. In modern deployments, insecticides are the most widely used type of pesticide. Throughout history military forces have been decimated by diseases carried by insects such as malaria, yellow fever and plague. Pesticides and the DoD Arthropod Repellent System play an important role in protecting you and your unit. The Department of Defense (DoD) has many regulations and policies in place to ensure that pesticides are used safely and judiciously. |
| **ROUTINE USES IN THE DEPLOYED SETTING** | While there are many possible uses of pesticides in the field, by far the most common use will be to control medically important insect, tick and rodent species. Medically important pests are those insects, ticks or other animals that bite, sting or spread disease. Insects that carry diseases which impair our health and may ultimately degrade the combat strength of the unit, will be targeted for control. In rare instances herbicides may be applied to control unwanted vegetation, such as poison ivy. Common pesticide applications may include: Fogging for mosquito control, area sprays for tick control, perimeter applications to control crawling insects and the placement of rodent or fly baits. Applications may be made using various power equipment mounted on vehicles or even aircraft, by a handheld 2-gallon sprayers, or hand placement of baits.<br>Only personnel properly trained in the safe use of pesticides should handle and apply pesticides. All pesticides must be used in accordance with label directions. |
| **PERSONAL PROTECTIVE EQUIPMENT (PPE) and COUNTERMEASURES AVAILABLE FOR DEPLOYED PERSONNEL** | If possible leave the immediate area, while pesticide applications are occurring and do not re-enter until surfaces are thoroughly dry. Avoid inhalation of pesticide mists or vapors. Protect food and water supplies and mess utensils form coming in contact with pesticides. Do not ingest food or water suspected of being contaminated with a pesticide. Never tamper with rodent or fly baits. In the event you come in contact with any pesticide, wash the affected area promptly with soap and water. In the event of eye contact, immediately rinse the affected eye(s) with water for 15 minutes. |
| **EXPOSURE LEVELS HISTORICALLY ENCOUNTERED** | When used in accordance with product labels, pesticides should not cause adverse health effects.<br>When applied indoors and adequate ventilation is present the amount of active chemical in the air should not be sufficient to cause symptoms. If ventilation is not adequate, the level may exceed exposure standards. |
| **AVAILABLE EXPOSURE DATA** | Be sure to mention to your healthcare provider if your unit/work area, has received any pest control treatments either by your own unit level Field Sanitation Team or by personnel assigned to Preventive Medicine detachments. |

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| **SIGNS & SYMPTOMS OF ACUTE AND CHRONIC EXPOSURE** | Exposure may occur by inhalation of mist and vapors, eating or drinking (ingestion) contaminated food and water, or by absorption through the skin. The speed of the appearance of symptoms depends on the method of contact. Inhalation of pesticide mist and vapors produces the most rapid symptoms, followed by ingestion and finally absorption through the skin being the slowest producer of symptoms. The most rapid on-set symptoms usually occur through inhalation of mists and vapors, the following signs and symptoms may occur within minutes: dilated pupils, frontal headache, runny nose, tightness in chest, cough. Additional early symptoms which may occur following inhalation or ingestion include excessive sweating, headache, weakness, giddiness, nausea, vomiting, stomach pains, blurred vision, slurred speech, and muscle twitching. Later there may be convulsions, coma, loss of reflexes, and loss of sphincter control.<br>Treatment before person is seen by a physician - if these symptoms appear following inhalation exposure, remove the person to fresh air immediately. In the event of skin exposure, the person should stop what they are doing immediately, remove contaminated clothing and wash the affected skin with soap and water if available, and flush the area with large quantities of water. If ingestion of contaminated food or water is suspected, vomiting should be induced if the person is conscious. In all events begin CPR if person stops breathing.<br>**All persons suspected of pesticide poisoning should be immediately seen by a health care professional.** |
| **REVERSIBILITY OF ACUTE AND CHRONIC HEALTH EFFECTS** | After stopping additional exposure, the effects of most pesticides can be reduced or reversed using antidotal therapy administered by a physician. Depending on the particular pesticide to which you were exposed, treatment will vary. It is important to attempt to ascertain what pesticide was used and how exposure may have occurred. Generally, in mild cases, you will feel much better soon after exposure is stopped. However you may be more susceptible to adverse effects in the event of re-exposure to pesticides.<br>In rare instances of short-term exposures to very high levels, or long term, repeated exposure to moderate or high levels, permanent damage to the nerves can occur. |
| **TREATMENT REQUIRED/AVAILABLE FOR EXPOSURE** | The immediate treatment for exposure is to stop the exposure when effects occur. Prevention of the exposure in the first place is even more desirable!<br>Eye contact: immediately rinse the affected eye(s) with water for 15 minutes. The individual should seek medical evaluation immediately after rinsing the affected eye.<br>Skin contact: immediately wash the affected area with soap and water, ensure fingernails, hair and skin folds are thoroughly cleansed, if assistance is required, attendants should wear gloves. The individual should seek medical evaluation immediately after rinsing the affected area. Medications are available which may be applied to the skin, taken orally, or injected if needed, to treat the acute rash depending upon the severity.<br>Inhalation exposure: Immediate treatment is to stop continued exposure. Simply moving to fresh air accomplishes this. Oxygen may be needed in more severe exposures, such as exposures resulting in breathing difficulties or loss of consciousness. Any/all symptoms should be immediately evaluated by medical personnel. |
| **LONG TERM MEDICAL SURVEILLANCE REQUIREMENTS OF HEALTH EFFECTS MONITORING** | Depending on the degree of exposure and the pesticide involved, long-term medical monitoring may be indicated. |
| **SPECIAL RISK COMMUNICATION INFORMATION** | Generally, when you are no longer exposed to the pesticide, the chemical is eliminated from your body. The speed at which this occurs varies with the specific pesticide to which you were exposed.<br>In rare cases, where acute exposure resulted in significant respiratory problems or a loss of consciousness, there may be lasting effects associated with breathing or mental tasks. If you feel that you have had that type of an exposure, bring this to the attention of your healthcare provider. |