

Chlorpyrifos Misuse in Rutland County

To: Health Care Providers in Rutland County
From: Sarah Vose, State Toxicologist

– Please Distribute Widely –

The Agency of Agriculture and the Health Department are working together to look into misuse of chlorpyrifos by AAA Accredited Pest Control in Rutland County. About 50 to more than 100 homes may be tested for chlorpyrifos, and the Health Department will contact residents to explain sample results. In some cases, we will recommend that residents relocate until their residence is decontaminated.

Chlorpyrifos is an organophosphate insecticide. Residential use of chlorpyrifos is no longer allowed because of potential health effects.

Chlorpyrifos inhibits acetylcholinesterase, and causes accumulation of acetylcholine at the neuromuscular junction. Exposure to chlorpyrifos may cause cholinergic symptoms in both the peripheral and central nervous system. Symptoms include SLUDGE (salivation, lacrimation, urination, defecation, gastrointestinal distress, and emesis). Other symptoms include nausea, dizziness, fatigue, tremors, muscle twitching, difficulty breathing, and chest tightness. Experimental evidence in animals and limited epidemiological data also indicate prenatal exposure to chlorpyrifos and other organophosphates may have adverse effects on neurodevelopment.

If treated surfaces are cleaned with an oxidizer, the active metabolite (chlorpyrifos-oxon) may be formed. Chlorpyrifos-oxon is more toxic than chlorpyrifos.

Urinary 3,5,6-trichloro-2-pyridinol (TCP) levels may be indicative of exposure to chlorpyrifos. Blood cholinesterase activity can also be used to indicate exposure to chlorpyrifos and other organophosphates, although interpretation of cholinesterase activity in the absence of a baseline can be problematic.

Report suspected cases – If you suspect that a patient has experienced symptoms as a result of chlorpyrifos exposure, call the Health Department at 802-863-7598.

For more information – about organophosphate insecticides, including chlorpyrifos:
http://npic.orst.edu/RMPP/rmpp_ch4.pdf