




Laundering Pesticide Contaminated Clothing

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The laundering of pesticide contaminated clothing raises many questions. What is the best method? What water temperature should be used? What about contamination of other clothing? Is one type of detergent better than another? This bulletin will help answer these questions.

The pesticide container label is a guide for learning how toxic the chemical being used is. Key words on all pesticide labels identify the toxicity of the products (Table 1). The key word is only a guide when handling and laundering pesticide contaminated clothing. Clothing contaminated with highly toxic chemicals requires more care when handled than clothing contaminated with slightly toxic chemicals. However, **all clothing contaminated with pesticides should be handled with care.**

Table 1. Toxicity ratings of various pesticides.

Key word	Toxicity	Examples*		
DANGER POISON	Highly toxic/ concentrated 	Furadan Cyprax Methomyl Supracide Di-Syston	Hoelon Avenge Vendex Thimet Counter	Temik Paraquat Dyfonate Dinitro Guthion Parathion
WARNING	Moderately toxic	Plictran Dimethoate Lorsban Pydrin		Diazinon Maneb Avadex Plictran Roundup
CAUTION	Slightly toxic	Eptam Glean Captan Pounce Treflan		2,4-D Benlate Sevin Banvel Malathion

*Toxicity of the pesticide may vary depending upon the formulated product. Use the key word as an indication of the toxicity level.

Laundering Recommendations

Only clothing that has not been thoroughly saturated with the pesticide or clothing that has not had undiluted chemical spilled on it can be effectively laundered. All others should be destroyed. Store contaminated clothing

in a separate container. **Wash contaminated clothing separately from the family wash**, because pesticide residues are transferred from contaminated clothing to other clothing when they are laundered together. Know when pesticides have been used so all clothing can be properly laundered!

Pre-rinse contaminated clothing in the washing machine to help remove pesticide particles from the fabric. Pre-rinsing is especially effective in dislodging the particles from clothing when a wettable powder pesticide formulation has been used.

Clothing worn while using slightly toxic pesticide may be effectively laundered in one machine washing. It is strongly recommended that at least three washings be used on clothing contaminated with more toxic pesticides. Always wear rubber gloves when handling contaminated clothing to prevent pesticide absorption into your body. Wash your gloves after each use and use them only for this purpose.

Washing in hot water (120°F to 140°F) removes more pesticide from the clothing than washing in cooler water temperatures. Remember . . . the hotter, the better. Avoid cold water washing! Although cold water washing might save energy, cold water temperatures are relatively ineffective in removing pesticide from clothing.

Laundry detergents — whether phosphates, heavy duty liquids or carbonates — are similarly effective in removing pesticides from fabric. However, research has shown that **heavy duty liquid detergents** are more effective than other detergents in removing emulsifiable concentrate pesticide formulations because of their oil-removing ability.

Wash only one or two garments in a single load. Wash garments contaminated by the same pesticide(s) together. Launder using a full water level to allow the water to thoroughly flush the fabric.

Clothing exposed to pesticides daily should be changed and laundered daily. Pesticides may be removed much more easily from clothing by daily laundering than attempting to remove residues that have accumulated over a period of time or that have dried or "set" on fabric.

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If your washer has a suds-saver system **DO NOT USE IT** when laundering contaminated clothing. Rinse the washing machine with an "empty load" using hot water and the same detergent, machine settings and cycles used for laundering the contaminated clothing. This is important since pesticide carry-over to subsequent laundry loads is possible because the washing machine may retain residues.

Line drying is recommended to eliminate the possibility of residues collecting in the dryer, although heat from

an automatic dryer can create additional chemical breakdown of pesticide residues.

Summary

Properly laundering pesticide contaminated clothing will protect you, your family and those applying pesticides. Follow the steps outlined in the boxes for laundering of pesticide contaminated clothing.

Follow These Steps When Laundering Pesticide Contaminated Clothing:

- **DISCARD** (burn or bury) clothing if thoroughly saturated or contaminated with undiluted pesticides.

For other contaminated clothing:

- **READ** the pesticide **LABEL** for information.
- **WEAR RUBBER GLOVES** when handling clothing.
- Wash them **SEPARATELY** from **FAMILY** laundry.
- Wash **A FEW** contaminated garments at a time, using lots of water.
- **PRE-RINSE** clothing.
- **WASHING** machine settings: **HOT** water temperature (140°F), **FULL** water level, **NORMAL** (12 minutes) wash cycle.
- **RE-WASH** the contaminated clothing two or three times if highly toxic pesticides are used.
- **LAUNDRER WORK CLOTHING DAILY** when pesticides are being applied daily.
- **RINSE THE MACHINE** after laundering contaminated clothing by running a wash cycle without clothing in the machine.
- **LINE DRY** clothing to avoid contaminating the automatic dryer.

Other precautions concerning clothing:

- If clothing gets soaked with pesticides, change immediately. Bathe thoroughly to remove it from the skin. See a physician immediately. If clothes are thoroughly saturated, they should be carefully buried or burned as high concentrations of pesticides are almost impossible to remove.
- Keep clothing, hat, boots, gloves, etc., worn for pesticide application separate from other clothes, and wear them only for that purpose. Do not store them in pesticide storage.
- Inspect clothing often to make sure there are no rips or tears that will allow pesticide to get to the skin.
- Always wash your hands thoroughly before eating, smoking or going to the bathroom. Pesticide residue could be transferred to food, cigarettes or other body parts.
- Immediately after pesticide applications, shower and wash your hair. Don't forget to clean under fingernails, in ears, mustache and beards.
- Avoid wearing a watch or any other jewelry that may become contaminated. Avoid leather watchbands, leather shoes and cloth, leather or felt hats as they cannot be properly cleaned.

About the Authors

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