

Resource Section
Cholinesterase Monitoring WAC 296-307-148
Sample Worker Training Program
Handler Hours Tracking Form
Organophosphate and N-Methyl-Carbamate Pesticides

This form can help you track handler hours as required by WAC 296-307-14805

Full Name of Handler (see back of sheet):

		Total Hours from Previous Page =		
Time Information:	Full Name of Pesticide(s) used or in contact with:	Activity (see back of sheet for examples)	Total Hours - last 30 days	Comments:
Date: _____ Start time: _____ Stop time: _____ Less Lunch/break time: _____ Total time: _____				
Date: _____ Start time: _____ Stop time: _____ Less Lunch/break time: _____ Total time: _____				
Date: _____ Start time: _____ Stop time: _____ Less Lunch/break time: _____ Total time: _____				

Handler Hours Form

Organophosphates and N-Methyl-Carbamates

*“**Handler**” means a person, including a self-employed person.

- Who is employed for any type of compensation by an agricultural establishment or commercial pesticide handling establishment of which WAC 296-307-130 applies and who is:
 - Mixing, loading, transferring, or applying pesticides.
 - Disposing of pesticides or pesticide containers.
 - Handling opened containers of pesticides.
 - Acting as a flagger.
 - Cleaning, adjusting, handling, or repairing the parts of mixing, loading, or application equipment that may contain pesticide residues.
 - Assisting with the application of pesticides.
 - Entering a greenhouse or other enclosed area after the application and before the inhalation exposure level listed in the labeling has been reached or one of the ventilation criteria established by WAC 296-307-12015(3)(c) or in the labeling has been met:
 - To operate ventilation equipment.
 - To adjust or remove coverings used in fumigation.
 - To monitor air levels.
 - Entering a treated area outdoors after application of any soil fumigant to adjust or remove soil coverings such as tarpaulins.
 - Performing tasks as a crop advisor:
 - During any pesticide application.
 - Before the inhalation exposure level in the labeling has been reached or one of the ventilation criteria established by WAC 296-307-12015 (3)(c) or in the labeling has been met.
 - During any restricted-entry interval.

The term does not include any person who is only handling pesticide containers that have been emptied or cleaned according to pesticide product labeling instructions or, in the absence of such instructions, have been subjected to triple-rinsing or its equivalent.

NOTE: IF YOU ARE ROUNDING WHEN COUNTING: ALWAYS ROUND UP, such as, to the nearest quarter or half hour.

ALSO, SUBTRACT BREAKS AND LUNCH FROM THE COUNT!

Cholinesterase Monitoring (blood test) Declination Form

Employer: _____

I understand that because I work with certain dangerous pesticides*, I can get blood tests to tell if I have too much pesticide in my body. I also understand that I do not have to pay for these blood tests, my employer will provide the tests at no cost to me.

I have talked with a medical provider about the blood tests and the benefits and possible disadvantages of participating in the cholinesterase blood test program. I know that if the medical provider recommends that I stop handling these pesticides for a short period of time, the law says my employer must continue to provide my pay and benefits for up to 3 months or until I am allowed to return to work with these pesticides.

I have decided not to take the blood tests. I understand that if I change my mind and decide to have the blood tests, my employer will provide the tests at no cost to me.

Employee's Name (Print)

Medical Provider Signature (Witness)

Employee's Signature

Date

Date

*Organophosphate and N-methyl-carbamate pesticides with the words "Danger" or "Warning" on the label.

**WORKER PROTECTION STANDARD
CHECKLIST OF REQUIREMENTS
Chapter 296-307 WAC, Parts I and J-1**

Washington State
Department of Agriculture
Pesticide Management
P.O. Box 42589, Olympia, WA 98504-2589
(360)902-2040

NAME		DATE	TIME
ADDRESS			
CITY		STATE	ZIP
CORP OR CO-OP	NUMBER OF ACRES	NUMBER OF WORKERS	TYPE OF WORK (Seasonal, etc.)

CENTRAL NOTIFICATION

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Is central notification displayed when handlers or workers are on the establishment during an application or when an REI has been in effect within the last 30 days?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Is an approved safety poster displayed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Is emergency medical information displayed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Is pesticide information displayed for each application?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Location of area treated
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Product name
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. Active ingredient
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d. EPA registration number
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e. Time and date of application
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f. Restricted Entry interval
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Does the pesticide information remain for 30 days following the REI?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Is the site easily accessible to workers/handlers?

Exception: *No need to display central notification if only immediate family members work on the establishment.*

TRAINING

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Are handlers WSDA Certified Pesticide Applicators or consultants or WPS trained handlers?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Do handlers receive training before performing a pesticide application or other handling activity?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Are handlers informed of labeling and have access to labels?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Are all workers Certified Pesticide Applicators or consultants WPS trained?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Do workers receive training before entry into treated areas?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Do early entry workers receive training before entry into treated areas?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Do trainers have proper qualifications to train (Certified Pesticide applicator, WPS handler, or attended WA approved trainer seminar)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Is training repeated every 5 years?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. Is training presented in a language the trainees can understand?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Is training presented orally or audio visually?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. Does the trainer respond to trainee's questions?

DECONTAMINATION FOR HANDLERS

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Are handler decontamination sites supplied with clean water, soap, disposable towels and clean coveralls?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Does handler(s) have decontamination supplies at:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. mix/load area
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. within ¼ mile or closest point of vehicular access of where performing handler task
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. where PPE is removed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Is sufficient eye flush water immediately available to handlers and early-entry workers?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. <u>Early entry workers</u> -- 1 pint of immediately accessible eyewash when label requires protective eyewear.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. <u>Handlers</u> -- 1 pint of immediately accessible eyewash when performing task when label requires protective eyewear.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. 6 gallons additional eyewash required for handlers:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. at decontamination sites when label requires protective eyewear for mixing, loading, or application
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. at all permanent mixing/loading stations

DECONTAMINATION FOR WORKERS

YE NO N/A
S

- 1. Are worker decontamination sites supplied with clean water (enough for routine cleaning and emergency eyewash), soap, and towels?
- 2. Are worker decontamination sites within ¼ mile of the work site or at the closest point of vehicular access?
- 3. Does decontamination site for early entry workers have at least 10 gallons of water for employees?

DECONTAMINATION TIME PERIOD

- 1. Are decontamination sites provided for required periods of time after expiration of REI: 7 days for 4 hour REI, and 30 days for all other.

NOTICE OF APPLICATIONS

- 1. When required on the label, are both oral and posted warnings given?
- 2. Are oral warnings given clearly and in a language the workers can understand and do they contain required information?
- 3. If posting:
 - a. Is the appropriate sign being used?
 - b. Is the sign put up no more than 24 hours prior to application?
 - c. Does the sign come down within 3 days of the end of the REI?
 - d. Is the sign posted at normal worker points of entry to the treated area?
- 4. Are all greenhouse applications posted?

Exceptions:

Oral warning or signs are not needed for employees who will not be within ¼ mile of the treated area for the length of the REI; will not be in the greenhouse during the application and REI, or who perform the application.

ENTRY RESTRICTIONS

- 1. Are workers not allowed in area under REI (unless permissible early entry is allowed)?
- 2. Do early entry workers (with contact) remain in the treated area for no more than 1 hour per 24 hours? (there are two exceptions which allow early entry for up to eight hours for limited contact activities.
- 3. Has early entry during agricultural emergencies been approved by WSDA?

INFORMATION EXCHANGE

- 1. Has your Custom applicator provided you with required information for your central notification prior to application?
- 2. Have you provided information to the Custom Applicator about REI's in effect on your property?

PPE

- 1. Is required PPE provided to handlers and early entry workers?
- 2. Are persons instructed in the proper use of PPE?
- 3. Is PPE inspected before each day's use?
- 4. Are cleaning/maintenance requirements of PPE met?
- 5. Is a clean place provided for PPE storage?
- 6. Are appropriate measures taken to avoid heat related illness?
- 7. Have those cleaning PPE received special instruction?

Exception:

Some of the label required handler PPE may be omitted if using a closed system, enclosed cab or cockpit. (Generic PPE for new limited contact early entry exceptions)

EQUIPMENT SAFETY

- 1. Is equipment used for mixing, loading and applying pesticides inspected and repaired before each day of use?
- 2. Have handlers been instructed in proper use of application equipment?

EMERGENCY ASSISTANCE

- 1. Is transportation made available to any employee who becomes sick or is believed to be injured by pesticides?
- 2. Are provisions made to supply information about the pesticide to medical personnel?

APPLICATIONS RESTRICTIONS AND MONITORING OF HANDLERS

- 1. Are pesticides applied so that no one is contacted except appropriately trained and equipped handlers?
- 2. Is sight or voice contact made by a trained and equipped handler at least every 2 hours with a handler using a skull and crossbones pesticide?

CHOLINESTERASE MONITORING

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Have you identified pesticide handlers likely to exceed the thresholds for work with Class I or Class II organophosphate or N-methyl carbamate pesticides? (Note: the threshold in 2004 is 50 hours in 30 consecutive days, and in 2005: 30 hours in 30 consecutive days)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Have you identified a medical provider for cholinesterase testing of your handlers?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Have you provided all pesticide handlers identified in item 1 with the training in item 7 and an initial medical examination. An annual baseline test, at least 30 days since the last exposure to the covered pesticide, will be included with the initial exam and employees will be given an opportunity to decline blood testing.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Have you determined which schedule to provide periodic testing you will use? <ul style="list-style-type: none"> ▪ At least every 30 days from the day of the first application of covered pesticides ▪ ▪ OR ▪ ▪ Within 3 days of meeting the exposure threshold, but no more than once every 30 days (the “hours counting option”)?
Exception:			Hours spent mixing and loading using closed systems (Lock ‘N Load, soluble packets or “solupak”) will not be counted as exposure hours for periodic testing.
Exception:			Employees who handle only N-methyl-carbamate pesticides will be exempt from the medical monitoring requirement.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Have you maintained the following records? <ul style="list-style-type: none"> ▪ Name of medical provider ▪ Medical provider recommendations ▪ Work practice evaluations ▪ Medical removal dates ▪ Declination forms <p style="text-align: center;">No: 7-year retention requirement for all records</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Have you provided training to identified pesticide handlers that includes: <ul style="list-style-type: none"> –The health hazards of organophosphate and N-methyl-carbamate pesticides –The purpose and requirements of cholinesterase monitoring
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Did you evaluate your Worker Protection Program to identify and correct potential exposures, for each handler with a reported cholinesterase depression? <ul style="list-style-type: none"> ▪ Work practices ▪ Clothes ▪ Respirator ▪ Sanitation <p>Corrective Actions Taken (use back of page if more space is required)</p> <hr/> <hr/> <hr/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Was the employee to be temporarily removed from exposure or shifted to other work after a recommendation from your medical provider? If so, what was the first day of removal? _____ If the employee was returned to handling specified pesticides, enter the date of return: _____

The following program will help you meet the training requirements in WAC 296-307-14840, which requires that your employees be trained before initial medical monitoring.

WHAT IS CHOLINESTERASE?

1. Cholinesterase is a substance in the body that is necessary for proper functioning of the nervous system.
2. If the amount of available cholinesterase falls below a safe level, the nervous system can no longer control the messages it sends to muscles.

WHICH PESTICIDES AFFECT CHOLINESTERASE?

3. Two types of pesticides, the organophosphates and the carbamates, reduce available cholinesterase. (*Employer should give examples of commonly used organophosphates and carbamates*)
4. The most dangerous organophosphate and carbamate pesticides are those with the words “DANGER” or “WARNING” on the label.
5. Exposures to these pesticides may occur while mixing, loading, applying and other pesticide handling activities.

WHAT ARE THE SYMPTOMS OF EXPOSURE?

6. Symptoms of overexposure may occur from single large exposure, such as spilling the pesticide, or from small exposures over a period of time, such as applying these products over an entire growing season.
7. Symptoms of overexposure to these pesticides include headache, dizziness, blurred vision, stomachache, diarrhea, drooling, sweating more than usual, tightness of the chest, muscle twitching, pinpoint pupils, and difficulty breathing.

WHAT IS THE TREATMENT FOR OVEREXPOSURE?

8. Organophosphates and carbamates do not permanently reduce cholinesterase. New cholinesterase is made in the body.
9. The most common treatment for overexposure is to temporarily stop handling and other exposures to organophosphate and carbamate pesticides until cholinesterase returns to its usual level.

HOW DO YOU AVOID OVEREXPOSURE?

10. Follow the pesticide worker protection program and instructions on the pesticide label.
 - Always use personal protective equipment
 - Always wash skin and clean equipment as directed
 - Always respect restricted entry periods

CAN CHOLINESTERASE LEVELS BE MONITORED?

11. Yes, cholinesterase levels can be measured through simple blood tests.
12. Each person's usual cholinesterase level (baseline) is determined prior to handling organophosphate and carbamate pesticides.
13. Periodic tests taken throughout the application season are compared to the baseline to identify changes in cholinesterase levels.

WHY MONITOR CHOLINESTERASE LEVELS?

14. Benefits of cholinesterase monitoring include:

- Prevention of overexposure
- Safer workplace
- Improved medical care

WHO SHOULD BE MONITORED?

15. Workers who handle the most dangerous organophosphate and carbamate pesticides for 50 or more hours in any consecutive 30-day period.
16. In 2005 this will change to handling for 30 or more hours in any consecutive 30 –day period.

HOW WILL CHOLINESTERASE MONITORING BE PROVIDED?

17. You will be sent to a physician or clinic to discuss your option to participate in a cholinesterase-monitoring program.
18. Cholinesterase monitoring will be provided to you at no cost.

WHAT WILL HAPPEN IF OVEREXPOSURE IS DETECTED?

19. (Your employer) may be directed to look at the worker protection program to try and eliminate the cause of your exposure.
20. You may be temporarily removed from exposure to organophosphate and carbamate pesticides until your cholinesterase levels return to close to baseline.
21. Your pay and benefits will be protected (for up to 3 months) if you are temporarily removed from handling organophosphate and carbamate pesticides.
- 22.

QUESTIONS?

23. The physician or clinic can answer any question that you have about cholinesterase testing.
24. For questions about the Cholinesterase Monitoring Rule you can call the department of Labor & Industries at 1-800-4BE-SAFE (1-800-423-7233)