

QUICK REFERENCE GUIDE TO THE WORKER PROTECTION STANDARD (WPS) AS REVISED IN 2015

The WPS is a federal regulation designed to protect agricultural workers (people employed in the production of agricultural plants) and pesticide handlers (people mixing, loading, or applying pesticides or doing certain tasks involving direct contact with pesticides). Each section links to the Code of Federal Regulations ([40 CFR Part 170](#)) for more information on the revised WPS. (www.ecfr.gov)

The guide summarizes the maximum requirements under the revised WPS. It does not include exemptions and exceptions that may allow you to do less. See the referenced sections below.

Exemptions (general) [170.303 \(b\)](#) and [170.601](#)

Exceptions for workers [170.401 \(b\)](#) and [170.409 \(a\)\(2\)](#)

Exceptions for early-entry workers during a restricted-entry interval [170.603](#)

Exceptions for handlers [170.501 \(b\)](#)

Exceptions to PPE required on pesticide labels [170.607](#)

Employer Responsibilities for Supervisors and Labor Contractors

Employers must provide sufficient information to supervisors and/or labor contractors to ensure compliance with the revised WPS. Specify:

- The tasks supervisors/labor contractors must do, and
- The information they must provide to workers/handlers.

Employers are liable for a penalty under FIFRA if a supervisor or labor contractor acting for them fails to comply with the revised WPS requirements. [170.309 \(d\)](#), [170.313 \(d\)](#), [170.317 \(c\)](#)

Duties for ALL Employers

These requirements apply to agricultural employers and commercial pesticide handler employers except the pesticide safety, application and hazard information requirements apply only to agricultural employers.

Anti-Retaliation

Employers must not retaliate against a worker or handler who attempts to comply with the WPS, files a complaint, or provides information in an investigation of alleged WPS noncompliance.

[170.315](#)

Minimum Age Requirements

1. Ensure that early-entry workers and all handlers are at least 18 years old. [170.309 \(c\)](#) and [170.313 \(c\)](#)

Pesticide Safety, Application and Hazard Information

An agricultural employer must display or make certain information available on the establishment. Commercial pesticide handler employers do not have to comply with information display requirements.

1. Display or make available all of the information listed in #2 together in an easily accessible ("central") location on the agricultural establishment. [170.311 \(a\)\(5\)](#) and [170.311 \(b\)\(2\)](#)
2. The information includes:
 - EPA WPS safety poster or equivalent information, which must include some additional information by January 2, 2018, and must be kept current. [170.311 \(a\)](#)
 - Application information that includes:
 - o Product name, EPA registration number, and active ingredient
 - o Crop or site treated, location and description of the treated area
 - o Date, start and end times of the application, and duration of restricted-entry interval (REI). [170.311 \(b\)\(1\)](#)
 - A copy of the safety data sheet (SDS) for the formulated product for each WPS-labeled pesticide applied. [170.309](#) and [170.311](#)
3. In addition, display the EPA WPS safety poster (or equivalent) where decontamination supplies are located at permanent sites and where decontamination supplies are provided for 11 or more workers. [170.311 \(a\)\(5\)](#)
4. Allow workers and handlers unrestricted access to all of the information and keep all of the displayed information current and legible. [170.311 \(a\)\(6\)-\(7\)](#) and [170.311 \(b\)\(3\)-\(4\)](#)
5. Display the EPA WPS safety poster or equivalent information before an application takes place and for 30 days after the REI expires. [170.309 \(h\)](#)
6. Display the SDS and application information within 24 hours of the application and before workers enter treated areas. This information must be displayed for 30 days after the REI expires and kept in records on the agricultural establishment until 2 years after the REI expires. [170.309 \(h\)&\(i\)](#) and [170.311 \(b\)\(5\)-\(6\)](#)
7. Provide the SDS and application information upon request of a worker, handler, designated representative or medical personnel, within 15 days. [170.311 \(b\)\(7\)-\(9\)](#)

Pesticide Safety Training

Ensure that workers are trained before performing tasks in a pesticide treated area (REI in effect within the last 30 days). [170.401 \(a\)](#) Ensure that handlers are trained before performing any handler activity. [170.501 \(a\)](#) There is no grace period for worker or handler training.

1. Train workers and handlers annually. [170.401 \(a\)](#) and [170.501 \(a\)](#)
2. Present training using EPA-approved materials either orally from written materials or audio-visually. After January 2, 2018, the training must cover additional topics. [170.401 \(c\)](#) and [170.501 \(c\)](#)
3. Trainers must be certified applicators or have completed an EPA-approved train-the-trainer program or be designated by the State or Tribal pesticide enforcement agency. [170.401 \(c\)\(4\)](#) and [170.501 \(c\)\(4\)](#)
4. Training must be delivered in a manner the employees can understand, and the trainer must be present and respond to questions. [170.401 \(c\)\(1\)](#) and [170.501 \(c\)\(1\)](#)
5. Maintain training records on the establishment for two years from the training date for each worker and handler required to be trained on the agricultural establishment. [170.401 \(d\)](#) and [170.501 \(d\)](#)

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Separate from the pesticide safety training, employers must tell workers and handlers where to find the following on the worksite: EPA WPS safety poster (or equivalent), application information, SDS and decontamination supplies. [170.403](#) and [170.503 \(b\)](#)

Decontamination Supplies

1. Establish accessible decontamination supplies located together within 1/4 mile of all workers (when required [170.411 \(c\)](#)) and handlers. [170.411](#) and [170.509](#)
 - 1 gallon of water per worker and 3 gallons of water per handler at the beginning of each work period for routine and emergency decontamination,
 - Plenty of soap and single-use towels, Note: hand sanitizers and wet towelettes are insufficient. [170.411 \(b\)\(2\)](#) and [170.509 \(b\)\(2\)](#)
 - A clean coverall (or other clean change of clothes) for handlers
2. Provide water that is safe and cool enough for washing, eye-flushing, and drinking. Do not use water that is also used for mixing pesticides unless steps are taken to ensure safety. [170.411 \(b\)\(1\)](#)
3. Provide handlers with decontamination supplies where personal protective equipment (PPE) is removed at the end of a task. [170.509 \(a\)](#)
4. Provide handlers with decontamination supplies at each mixing and loading site. [170.509 \(c\)\(1\)](#)
5. When a product requires protective eyewear for handlers, and/or when using a closed system under pressure, provide the following in mixing and loading areas: a system that can deliver gently running water at 0.4 gallons per minute for at least 15 minutes or 6 gallons of water in containers suitable for providing a gentle eye-flush for about 15 minutes. [170.509 \(d\)\(1\)](#)
6. When applying a product that requires protective eyewear, provide 1 pint of water per handler in portable containers that are immediately available to each handler. [170.509 \(d\)\(2\)](#)
7. Do not put worker decontamination supplies in areas being treated or under an REI. [170.411 \(d\)](#)
8. For handlers, decontamination supplies must be kept outside the treated area, or any area under an REI, unless they are protected from contamination in closed containers. [170.509 \(c\)\(1\)&\(3\)](#)

Employer Information Exchange

1. Before any application, commercial pesticide handler employers must make sure the owner/operator of an agricultural establishment where a pesticide will be applied, is aware of:
 - Location and description of area to be treated,
 - Date of application, estimated start time and estimated end time of the application,
 - Product name, EPA registration number, active ingredient(s), and REI,
 - Whether the product label requires both oral warnings and treated area posting,
 - All other safety requirements on labeling for workers or other people. [170.313 \(i\)](#)
2. Owners/operators of agricultural establishments must make sure any commercial pesticide handler employer they hire is aware of:
 - Specific location and description of any treated areas where an REI is in effect that the commercial handler may be in or walk within 1/4 mile of, and,
 - Restrictions on entering those areas. [170.309 \(k\)](#)

The commercial pesticide employer must pass this information along to the handler doing the work. [170.313 \(h\)](#)

Emergency Assistance

If there is reason to believe a worker or handler has been exposed to pesticides, during or within 72 hours of employment, and needs emergency medical treatment, employers must do the following:

1. Promptly make transportation available to an appropriate emergency medical facility.
2. Promptly provide to the treating medical personnel, information related to each pesticide product to which the person may have been exposed:
 - Safety Data Sheet
 - Product name, EPA registration number, and active ingredient(s).
 - Description of how the pesticide was used on the agricultural establishment.
 - Circumstances that could have resulted in exposure to the pesticide. [170.309 \(f\)](#)

This is a summary of the requirements. It does not contain all the information to comply with the revised WPS. Refer to the regulations where indicated for complete details.

Additional Duties for Worker Employers

These requirements apply to agricultural employers who employ workers.

Restrictions During Applications [170.405 \(a\)-\(b\)](#)

During pesticide applications, keep workers and everyone other than appropriately trained and equipped handlers out of the treated area (for all types of applications) and out of:

- The application exclusion zone (AEZ) for outdoor production, or
- A specified area that varies by the type of application until the ventilation criteria are met for enclosed space production.

Restricted-Entry Intervals (REIs) [170.309 \(i\)](#) and [170.407](#)

Do not direct or allow any worker to enter or remain in the treated area until the REI has expired and all posted warning signs are removed or covered. Read the exceptions in [170.603](#).

Notice About Applications [170.409 \(a\)](#)

1. Orally warn workers and post treated areas if required by the pesticide labeling.
2. If not, post warning signs if the REI is greater than:
 - 48 hours for outdoor production or
 - 4 hours for enclosed space production.
3. For all other applications, either orally warn workers or post warning signs.

Posted Warning Signs [170.409 \(b\)](#)

1. Post legible 14" x 16" WPS-design warning signs no more than 24 hours prior to an application; keep posted during REI; remove or cover before workers enter and within 3 days after the end of the REI. [170.409 \(b\)\(1\)-\(3\)](#)
2. Post signs so they can be seen at all reasonably expected entrances to treated areas. [170.409 \(b\)\(3\)\(ii\)](#)
3. Warning signs can be smaller than 14" x 16" under certain conditions. All warning signs must meet specific requirements. [170.409 \(b\)](#)

Oral Warnings [170.409 \(c\)](#)

1. Before each application, tell workers who are on the establishment (in a manner they can understand):
 - Location and description of treated area,
 - Date and times entry is restricted
 - AEZ, REI, and not to enter during REI.
2. Workers who enter the establishment after application starts must receive the same warning at the start of their work period.

Additional Agricultural Employer Duties

Before allowing persons not directly employed by the establishment to clean, repair, or adjust pesticide application equipment, provide the following information:

- The equipment may be contaminated with pesticides.
- The potentially harmful effects of pesticide exposure.
- How to handle equipment to limit exposure to pesticides.
- How to wash themselves and/or their clothes to remove and prevent exposure to pesticide residues. [170.309 \(g\)](#) and [170.313 \(i\)](#)

Additional Duties for Handler Employers

These requirements apply to commercial pesticide handler employers and agricultural employers who employ handlers.

Application Restrictions and Monitoring [170.505](#)

1. Do not allow handlers to apply a pesticide so that it contacts, directly or through drift, anyone other than appropriately trained and equipped handlers.
2. Handlers must suspend applications when anyone other than appropriately trained and equipped handlers enter the application exclusion zone (AEZ). This goes into effect on January 2, 2018. [170.505 \(b\)](#)
3. When anyone is handling a highly toxic pesticide with a skull and crossbones, maintain sight or voice contact every two hours.
4. Make sure a trained handler equipped with labeling-specific PPE maintains constant voice or visual contact with any handler in an enclosed-space production site (e.g., greenhouses, high tunnels, indoor grow houses) while applying a fumigant.

Specific Instructions for Handlers

1. Before handlers do any handling task, inform them, in a manner they can understand, of all pesticide labeling instructions for safe use. [170.503 \(a\)\(1\)](#)
2. Ensure that the handler has access to product labeling during the entire handling task. [170.503 \(a\)\(2\)](#)

Equipment Safety

1. Inspect pesticide handling equipment before each day of use, and repair or replace as needed. [170.309 \(i\)](#) and [170.313 \(g\)](#)
2. Allow only appropriately trained and equipped handlers to repair, clean, or adjust pesticide equipment that contains pesticides or residues, unless they are not employed on the establishment. [170.309 \(g\)](#) and [170.507 \(a\)](#) See Additional Agricultural Employer Duties for information regarding non-employed persons.

Personal Protective Equipment (PPE) Handlers Must Use

1. Provide handlers with the PPE required by the pesticide labeling, and be sure it is: [170.507 \(b\)](#)
 - Clean and in operating condition. [170.507 \(b\)](#)
 - Worn and used according to the manufacturer's instructions. [170.507 \(c\)](#)
 - Inspected before each day of use. [170.507 \(c\)\(2\)](#)
 - Repaired or replaced as needed. [170.507 \(c\)\(2\)](#)
2. When a respirator is required by product labeling, provide handlers with:
 - A medical evaluation to ensure the handler is physically able to safely wear the respirator,
 - Training in respirator use, and
 - A fit test to ensure the respirator fits correctly.
 - Keep records on the establishment of these items for two years. [170.507 \(b\)\(10\)](#)
3. Take steps to avoid heat-related illness when labeling requires the use of PPE for a handler activity. [170.507 \(e\)](#)
4. Provide handlers a pesticide-free area for:
 - Storing personal clothing not in use,
 - Putting on PPE at start of task,
 - Taking off PPE at end of task. [170.507 \(d\)\(9\)](#)
5. Do not allow used PPE to be taken home. [170.507 \(d\)\(10\)](#)

Care of PPE

1. Store and wash used PPE separately from other clothing and laundry. [170.507 \(d\)\(3\)](#)
2. If PPE will be reused, clean it before each day of reuse, according to the instructions from the PPE manufacturer unless the pesticide labeling specifies other requirements. If there are no other instructions, wash in detergent and hot water. [170.507 \(d\)\(1\)](#)
3. Dry the clean PPE before storing. [170.507 \(d\)\(4\)](#)
4. Store clean PPE away from personal clothing and apart from pesticide-contaminated areas. [170.507 \(d\)\(5\)](#)

Replacing Respirator Purifying Elements

1. Replace particulate filters or filtering facepiece respirators when any following condition is met:
 - When breathing becomes difficult,
 - When the filter is damaged or torn,
 - When the respirator label or pesticide label requires it,
 - After 8 total hours of use, in the absence of any other instructions or indications of service life. [170.507 \(d\)\(6\)](#)
2. Replace vapor-removing cartridges/canisters when any following condition is met:
 - When odor/taste/irritation is noticed,
 - When the respirator label or pesticide label requires it (whichever is shorter),
 - When breathing resistance becomes excessive,
 - After 8 total hours of use, in the absence of any other instructions or indications of service life. [170.507 \(d\)\(7\)](#)

Disposal of PPE

1. Discard, do not clean, coveralls and other absorbent materials that are heavily contaminated with pesticide having a signal word "DANGER" or "WARNING." When discarding PPE, ensure that it is unusable as apparel or made unavailable for further use.
2. Follow federal, state, and local laws when disposing of PPE that cannot be cleaned correctly. [170.507 \(d\)\(2\)](#)

Instructions for People Who Clean PPE [170.507 \(d\)\(8\)](#)

The handler employer must inform people who clean or launder PPE:

- That PPE may be contaminated with pesticides,
- Of the potential for harmful effects of exposure to pesticides,
- How to protect themselves when handling PPE,
- How to clean PPE correctly, and
- Decontamination procedures to follow after handling contaminated PPE.



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Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. The HCS requires new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

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For more information:



U.S. Department of Labor



www.osha.gov (800) 321-OSHA (6742)

OSHA 3493-01R 2016



Hazard Communication Safety Data Sheets

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); ACGIH Threshold Limit Values (TLVs); and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the SDS where available as well as appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.

See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.

For more information:



U.S. Department of Labor



www.osha.gov (800) 321-OSHA (6742)

HEAT STRESS

Heat stress is the combination of factors, including air temperature, air movement, humidity, radiant heat, and physical work that determine the total heat load on the body. Heat stress may affect field workers, greenhouse staff, and pesticide handlers who are working in hot environments and/or wearing personal protective equipment (PPE). PPE can limit the body's ability to cool itself.

Heat strain is your body's response to heat stress. When heat stress is excessive, a person may feel uncomfortable and distressed and a heat illness can then occur. The severity of heat strain depends on many variables, some of which you can control and some of which you can't. These variables include age, level of physical fitness, level of dehydration, acclimatization, clothing, ventilation, and diet.

Heat Illnesses

Heat Illness	Description	Cause	Treatment	Prevention
Heat Cramps	painful muscle spasms following hard physical work; can occur during work or rest	dehydration or loss of body salt in sweat	stretch cramped muscle with one hand & gently kneed it with the other hand	drink a cup of water just before you work in the heat & 1/2 cup every 15 minutes during work
Heat Rash	tiny red blisters on the skin and/or a pricking sensation during heat exposure	plugging of sweat glands due to unrelieved exposure to humid heat; skin is continually wet with un-evaporated sweat	use mild drying lotions; keep skin clean to prevent infections	wear fast-drying cotton clothing; cool sleeping area to allow skin to dry between heat exposures
Heat Exhaustion	sweating; dizziness; fatigue; nausea; vomiting; headache; fainting; rapid pulse; cool, moist skin; pale or flushed complexion; dilated pupils; near normal body temperature	sustained exertion in heat; failure to replace water lost in sweat; may develop slowly over several days if you lose more water than you consume	remove to cooler environment; keep at rest on back with feet elevated; fan & sponge with cool water; 1/2 cup of water every 15 minutes; seek medical attention	drink a cup of water just before you work in the heat & 1/2 cup every 15 minutes during work
Heat Stroke	no sweating (or sweating profusely); hot, dry, red skin, high & rising internal temperature, pupils constricted; mental confusion, loss of consciousness, convulsions, or coma; FATAL IF TREATMENT DELAYED!	failure of sweating mechanism brought about by sustained exertion in unacclimatized workers; obesity, lack of physical fitness, recent alcohol intake, dehydration, & cardiovascular disease may be predisposing factors	CALL FOR MEDICAL HELP IMMEDIATELY - BRAIN DAMAGE AND DEATH MAY RESULT IF TREATMENT IS DELAYED; remove to cooler environment; keep at rest on back with feet elevated; cool by any means possible - hosing, immersion, rubbing ice on the skin, or pouring any liquid over the skin; give nothing by mouth	monitor yourself while working in severe heat; drink a cup of water just before you work in the heat & 1/2 cup every 15 minutes during work

How to Avoid Heat Stress

- Acclimatize. Allow your body to adjust to the heat naturally and gradually; gradually increase the time you spend in the heat until you reach the total amount of time desired. Most people acclimatize to warmer temperatures in 4-7 days.
- Drink Water. During hot weather, the body loses up to 3 gallons of fluid a day! Drink cool water before, during and after work during heat stress conditions. Drink at least 4 oz of water every 15 - 20 minutes during work, even if you're not thirsty. Don't depend on thirst - you can lose 2-4 lbs of water before you feel thirsty!
- Maintain Your Weight. All weight lost due to sweating should be regained every day. Weigh yourself every day and keep weight constant by drinking plenty of water.
- Avoid Alcohol. It causes dehydration - an added burden for your body in hot environments. Don't drink alcohol before starting strenuous physical work or exercise.
- Use Salt. Add salt normally to your food, but avoid salt tablets which may cause oversalting. Caution: Check with your physician about salt intake - especially if you have any heart or circulatory ailments, such as hypertension.
- Plan Ahead. Do the most strenuous exercise or work during the cooler periods of the day. Pace yourself.
- Eat Lightly. Eat light, nutritious meals -- preferably cold. Fatty foods are harder to digest in hot weather.
- Rest Often. Rest in the shade or in a well-ventilated room. Short, frequent breaks are more effective than long, infrequent ones.
- Wear the Right Clothes. For outdoor work wear wide-brimmed hats, sunglasses, sweatbands, and proper footgear. Breathable clothing will allow air to circulate better and sweat to evaporate faster.
- Take Advantage of Cooling Systems and Shade. Use fans, ventilation systems, and shade whenever possible. Cooling vests and gel headbands and wrist bands can provide additional relief.
- Be Physically Fit. One of the best protections against heat illness is physical fitness. A strong heart is better able 1) to pump large amounts of blood to supply oxygen to muscles and 2) to pump large amounts of hot blood from your muscles to your skin, where the heat can be dissipated.

Be Aware! Heat can also cause safety problems - You are more accident-prone while working in the heat! Heat stress can affect your coordination, your concentration, reduce your strength and alertness, and make you irritable! **Avoid heat stress!**