

UTAH STATE UNIVERSITY

HAZARD COMMUNICATION PROGRAM

2026

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I. Introduction

The purpose of the Utah State University Hazard Communication (HazCom) program is to ensure USU employees are trained on and aware of the hazards they may be exposed to while working at the university. The program is also intended to ensure compliance with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29CFR1910.1200.

The Hazard Communication Standard covers all employees (full-time, part-time, contract and payroll) who handle chemical products (hazardous materials) in the course of their work at the university. Workers who handle hazardous chemicals in the laboratory are covered under a separate regulation, Occupational Exposure to Hazardous Chemicals in Laboratories 29CFR1910.1450.

The Environmental Health & Safety Office (EH&S) is the general coordinator of the Hazard Communication Program. Departments and campus units are responsible for compliance in their own areas.

Additional information on this program can be obtained by contacting the EH&S Office at 435-797-2892. The EH&S main office is located in ECOB 128.

II. Responsibilities

The EH&S Office is responsible for providing oversight of the Hazard Communication Program at the University, for providing general training to employees and supporting department/campus units with development of written programs specific to the group's employees.

Each specific department/campus unit is responsible to modify this program by adding the information requested in Appendix A. The information requested in Appendix A is specific to your department or campus unit. Your written program needs to be modified to include this information in order to achieve an effective and regulatory compliant HazCom Program. Upon completing Appendix A, please send a copy via e-mail to the Chemical Hygiene officer, Rachel Curry (rachel.curry@usu.edu).

Each department/campus unit is responsible for the following:

- Ensuring a written program is maintained, implemented and updated as necessary.
- SDSs and chemical inventories are kept current.
- Hazard Communication training is provided to new employees and that employees attend the initial and refresher training provided by the EH&S Office.
- Designate a coordinator to ensure these items are accomplished. (Appendix B "Coordination for OSHA Hazard Communication Compliance" summarizes supervisor and campus unit safety representative responsibilities.)

III. Labels and Hazard Warnings

The labeling system to be used by Utah State University will follow the requirements in the 2012 revision of the OSHA Hazard Communication Standard to be consistent with the United Nations Globally Harmonized System (GHS) of Classification of Labeling of Chemicals. The label on the chemical is intended to convey information about the hazards posed by the chemical through standardized label elements, including symbols, signal words and hazard statements.

All hazardous chemical containers used at this workplace will have one of the following:

1. The original manufacturer's label that includes a product identifier, an appropriate signal word, hazard statement(s), pictogram(s), precautionary statement(s) and the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party
2. A label with the appropriate label elements just described
3. Workplace labeling that includes the product identifier and words, pictures, symbols, or combination that provides at least general information regarding the hazards of the chemicals.

Signs, placards, process sheets, batch tickets, operating procedures or other such written materials may be used, in lieu of affixing labels to individual stationary process containers, provided the alternative method identifies the containers to which it is applicable and conveys the identity of the hazardous material and associated hazards.

Portable containers used for transfer from labeled containers and which are intended only for the immediate use of the employee performing the transfer need not be labeled.

Each department/campus unit will ensure that all containers are appropriately labeled. No container will be released for use until this information is verified. Workplace labels must be legible and in English.

IV. Safety Data Sheets (previously known as Material Safety Data Sheets or MSDS)

The manufacturer or importer of a chemical is required by OSHA to develop a Safety Data Sheet (SDS) that contains specific, detailed information about the chemical's hazard using a specified format (see **Appendix C**). The distributor or supplier of the chemical is required to provide this SDS to the purchaser.

SDS's must be readily available to all employees during their work shifts. Employees can review SDS for all hazardous chemicals used at this workplace. The SDS's are updated and managed by department/campus unit.

V. Employee Training and Information

Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.

Before they start their jobs or are exposed to new hazardous chemicals, employees must attend a hazard communication training that covers the following topics:

- An overview of the requirements in OSHA's Hazard Communication Standard.
- Hazardous chemicals present in their workplace.
- Any operations in their work area where hazardous chemicals are used.
- The location of the written hazard communication plan and where it may be reviewed.
- How to understand and use the information on labels and in Safety Data Sheets.
- Physical and health hazards of the chemicals in their work areas.
- Methods used to detect the presence or release of hazardous chemicals in the work area.
- Steps we have taken to prevent or reduce exposure to these chemicals.
- How employees can protect themselves from exposure to these hazardous chemicals through use of engineering controls/work practices and personal protective equipment.
- An explanation of any special labeling present in the workplace.
 - What are pictograms (see **Appendix D**)?
 - What are the signal words?
 - What are the hazard statements?
 - What are the precautionary statements?
- Emergency procedures to follow if an employee is exposed to these chemicals.

The department/unit supervisor is responsible to ensure that employees receive this training. After attending the training, employees should sign a form verifying that they understand the above topics and how the topics related to the hazard communication plan.

Prior to introducing a new chemical hazard into the workplace, each employee in that area will be given information and training (SDS review) as outlined above for the new chemical hazard.

VI. Listing of Hazardous Materials

Chemical product inventories will be generated in individual work areas within campus units and departments. It is the responsibility of the departments/campus units to ensure that these inventories are maintained and updated when new chemicals are brought in or old chemicals are discarded.

Attach your department/area specific inventory as an Appendix to this plan.

VII. Chemical Spills

It is the responsibility of each department/campus unit to have spill control materials and the appropriate personal protective equipment readily available to clean-up a small chemical spill. In the event of a chemical spill, the individual(s) who caused the spill is responsible for prompt and proper clean-up. The EH&S Office can provide training on small spill clean up and provide assistance in selecting the proper spill control materials and personal protective equipment needed.

If the spill is too large or too hazardous for the individual(s) should call 911 or USU Dispatch at 435-797-1939. Calling 911 will dispatch the Logan City Hazmat team who will then clean-up the spill. The individual(s) who caused the spill should be available to assist the hazmat responders with information as to the type, quantity and location of the spill.

IX. Outside Contractors

The campus unit contracting with the outside firm is responsible to notify the contractor(s) of any hazardous chemical they may come into contact within the project area. The contractor, in turn, must inform the appropriate university entity(ies) of any hazardous chemicals they intend to use while on university property and must have the appropriate MSDSs onsite during the entire time the project is being done. The University entity(ies) will notify EH&S of the hazardous chemicals to be brought onsite before work starts. These MSDSs, both from the university and the contractor, must be made available to either party at any time they are requested.

IX. Non-Routine Tasks and Unlabeled Pipes

Whenever a non-routine task is to be done that involves the use of chemicals, the supervisor of the employees doing the work is responsible to review that job and inform the employees of the specific hazards associated with the work. The supervisor needs to emphasize any new hazards present in the job. If the supervisor is unsure of the hazards, the supervisor should call the EH&S Office for assistance.

If employees have unlabeled pipes carrying chemicals through their work area, the supervisor is responsible to inform employees of the contents of the pipes and their associated hazards. If the supervisor is unsure of the hazards, the supervisor may contact the EH&S Office for assistance.

APPENDIX A

Department/Campus Unit Specific Information for Compliance with the OSHA Hazard Communications Standard (29CFR1910.1200)

Samuel Johnson is the coordinator for the UAES Kaysville Research Farm

Written Program Location: In the SDS Binder

SDS Location: At central meeting location by the chemical shed and in an online folder

Is the SDS binder/file clearly labeled? Yes

Chemical Inventory Location: Inside the chemical shed at the designated mixing area

Program Documentation:

All employees are required to receive Hazard Communication (HazCom) training regarding the chemicals (hazardous materials and pesticides) that may be used in the course of their work and the associated hazards. Employees must complete initial HazCom training before performing any work with hazardous materials. When new chemicals are introduced into the workplace, employees will receive additional HazCom training specific to those chemicals to ensure continued awareness of hazards and safe handling procedures.

In addition to HazCom training, employees will complete the appropriate pesticide-related training based on their job duties, including EPA-approved WPS Pesticide Handler training, WPS Agricultural Worker training, or a state-approved Pesticide Applicator License. WPS training, when applicable, is required annually. Employees whose duties require respiratory protection will also complete training required by the USU Respiratory Protection Program, receive task-specific respiratory protection training, and participate in fit testing, as required by OSHA standards and program policy.

Training completion dates are documented, and a hard copy is maintained on site. Initial HazCom and respiratory protection training records are maintained electronically in the University Environmental Health and Safety Assistant (EHSA) database, while WPS training records are maintained in the USU Learning Management System (LearnBlue). The Farm Manager and USU Environmental Health and Safety (EH&S) have access to all employee training records.

Chemical Labeling System:

All hazardous chemicals are stored in a secured chemical storage building (chemical shed) that is clearly marked with appropriate hazard warning signage. Safety Data Sheets (SDSs) are maintained and readily accessible in the designated chemical records area located across the workway from the chemical storage building, along with field maps and pesticide application records (30-day and 2-year). Manufacturer labels are maintained on all pesticide products, as required by WPS and in accordance with OSHA's Hazard Communication Standard. If a

manufacturer's label becomes damaged, unreadable, or missing, a workplace label containing the required product identifier, appropriate signal word, hazard statements, precautionary statements, applicable pictograms, and manufacturer information will be affixed to the container.

Spill and Accident Information:

Chemical mixing will occur in a designated mixing area. The mix area has a built-in drain and catch tank underneath for washing out. Spill control materials, including a hazardous materials spill kit and required personal protective equipment (PPE), are located next to the chemical mixing area. Employees are trained by the farm manager on proper spill response and cleanup procedures.

Individuals who are responsible for a small, manageable chemical spill are expected to perform prompt cleanup using available materials and appropriate PPE.

If a spill is large, highly hazardous, or cannot be safely managed, employees must evacuate the area and call 911. The local HazMat team will respond, and individuals involved with the spill will be expected to remain on site and provide information on the type, quantity, and location of the spill. The Farm Manager is required to report the chemical spill to university EH&S office as soon as reasonably possible.

Chemical Waste Disposal:

All pesticides are used in strict accordance with their EPA-approved product labels. Mixing and loading chemicals occurs only in the designated chemical mixing area using equipment appropriate for the task. Air-blast sprayers are used for the application of pesticides, fungicides, miticides, and micronutrient sprays. UTV-mounted tank sprayers are used for herbicide applications. Boom sprayers are used to apply herbicides, fungicides, and pesticides as permitted by the product label and crop use directions. Backpack and handheld sprayers are used only when larger application equipment is not feasible, to minimize applicator exposure.

Spray tanks are emptied and rinsed in the designated chemical mixing area upon completion of applications, and all components of the sprayer are cleaned to remove chemical residues. Following each pesticide application, application equipment is washed in the designated wash area to remove any remaining contamination. Empty pesticide containers are triple rinsed immediately after use, with rinse water added to the spray tank, and are disposed of in accordance with label instructions and applicable regulatory requirements.

Unused or unwanted chemicals are managed as hazardous waste through the university's hazardous waste pickup program. USU follows strict EPA RCRA Subpart K regulations for hazardous materials management. All hazardous waste is labeled as "unwanted materials" and disposed of properly through EH&S or an approved third-party contractor after submitting a pickup request.

Personal Protective Equipment:

PPE available on site includes chemical-resistant disposable nitrile gloves; chemical-resistant reusable gloves; ANSI-rated safety glasses and splash proof goggles; NIOSH-approved N95 disposable filter masks; NIOSH-approved half-face elastomeric respirators; chemical-resistant aprons; and disposable hazmat suits.

N-95 disposable filter masks are not required for job duties, but have been made available for voluntary use (such as when lawn mowers are going nearby). A notice referencing CFR 1910.134 Appendix D is posted where N-95s are stored to provide health hazard awareness for voluntary mask use.

Decontamination of reusable PPE is conducted in accordance with OSHA Hazard Communication Standard (29 CFR 1910.1200), EPA Worker Protection Standard (40 CFR 170), pesticide label instructions, and manufacturer guidelines.

Hazard Communication Plan Updates:

This plan will be reviewed annually and updated as necessary when new regulations or chemicals are introduced. The Research Farm Manager is responsible for maintaining and updating the plan, coordinating required training and recordkeeping, and ensuring that Safety Data Sheets (SDSs) and all other pertinent hazard communication information remain current and readily accessible.

Plan Reviewed by:



Date of review:

Feb. 5th 2026

APPENDIX B

COORDINATION FOR OSHA HAZARD COMMUNICATION COMPLIANCE

The OSHA Hazard Communication Standard (HCS) governs chemical safety in the workplace. Given the number of USU employees, coordination and cooperation with the Environmental Health and Safety (EH&S) Office is essential for compliance with the HCS. Coordination is best accomplished by dividing the campus into Campus Units, with a Campus Safety Representative located in each unit. A USU campus unit is flexibly defined as a department, division, research group, or service. Each Campus Unit Safety Representative will coordinate with the EH&S Office to ensure necessary aspects of the standard are in place within his/her campus unit. Supervisors, by the nature of their positions, have responsibility for HCS compliance within their work area.

Supervisor Responsibilities:

- I. Maintain a complete inventory of hazardous materials in work area.
- II. Maintain complete work area files (subfiles) of SDSs for the above inventory.
- III. Send updated copies of the hazardous materials inventory to the EH&S Office.
- IV. Inform employees of specific chemical hazards associated with routine and non-routine operations.
- V. Inform employees of new chemical hazards in the workplace. Use SDSs and discussion of MSDSs at safety meetings.
- VI. Relay chemical hazard concerns to the Campus Safety Representative or USU EH&S Office.
- VII. Ensure that chemical containers are properly labeled. Ensure that labels for transfer containers are available to employees performing chemical transfers.

Campus Unit Safety Representative Responsibilities:

1. Work with individual supervisors and the EH&S Office to ensure that items 1-7 above are in place throughout the Campus Unit.
2. Schedule employee (HCS) training sessions with the EH&S Office.

APPENDIX C

GUIDE TO UNDERSTANDING SAFETY DATA SHEETS (SDSs)

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. As of June 1, 2015, the HCS will require 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

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); 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)).

APPENDIX D

HCS Pictograms and Hazards

Health Hazard  • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	Flame  • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides	Exclamation Mark  • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  • Gases Under Pressure	Corrosion  • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals	Exploding Bomb  • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  • Oxidizers	Environment (Non-Mandatory)  • Aquatic Toxicity	Skull and Crossbones  • Acute Toxicity (fatal or toxic)

APPENDIX E

BASIC RULES FOR THE SAFE HANDLING OF CHEMICALS IN THE WORKPLACE

The following rules should be used for all work involving chemicals.

Accidents and spills:

- Eye Contact: Promptly flush eyes with water for a prolonged period (15 minutes) and seek medical attention.
- Ingestion: Encourage the victim to drink large amounts of water. Refer to the Material Safety Data Sheet.
- Skin Contact: Promptly flush the affected area with water and remove any contaminated clothing. If symptoms persist after washing, seek medical attention.
- Clean-up. Promptly clean up spills, using appropriate protective apparel and equipment and proper disposal.

Avoidance of "routine" exposure: Develop and encourage safe habits; avoid unnecessary exposure to chemicals by any route.

- A. Do not smell or taste chemicals.
- B. Vent any apparatus which may discharge toxic chemicals into local exhaust devices.
- C. Inspect gloves and other personal protective equipment before use.
- D. Do not allow release of toxic substances in cold rooms and warm rooms, since these have contained re-circulated atmospheres.

Choice of chemicals: Use only those chemicals for which the quality of the available ventilation system is appropriate.

Eating, smoking, etc.: Do not eat, drink, smoke, chew gum, or apply cosmetics in areas where chemicals are present; wash hands before conducting these activities. Do not allow storage, handling, or consumption of food and beverages in areas, which are used for chemical operations.

Equipment and glassware: Handle and store chemical glassware with care to avoid damage; do not use damaged glassware. Use equipment only for its designed purpose.

Exiting: Wash areas of exposed skin well after chemical use.

Horseplay: Avoid practical jokes or other behavior which might confuse, startle or distract another worker.

Mouth suction: Do not use mouth suction for pipetting or starting a siphon.

Personal apparel: Confine long hair and loose clothing. Wear shoes at all times. Do not wear sandals, perforated shoes, or sneakers.

Personal housekeeping: Keep the work area clean and uncluttered, with chemicals and equipment being properly labeled and stored; clean up the work area on completion of an operation or at the end of each day.

Personal protection: Assure that appropriate eye protection is worn by all persons, including visitors, where chemicals are stored or handled. Wear appropriate gloves when the potential for contact with toxic materials exists; inspect the gloves before each use, wash them before removal, and replace them periodically. Use appropriate respiratory equipment when air contaminant concentrations are not sufficiently restricted by engineering controls, inspecting the respirator before use. Use any other protective and emergency apparel and equipment as appropriate. Avoid use of contact lenses unless necessary; if they are used, inform supervisor so special precautions can be taken.

Planning: Seek information and advice about hazards, plan appropriate protective procedures, and plan positioning of equipment before beginning any new operation.

Unattended operations: Leave lights on, place an appropriate sign on the door, and provide for containment of toxic substances in the event of failure of a utility service (such as cooling water) to an unattended operation.

Use of Local Exhaust Ventilation (LEV): Use LEV for operations which might result in release of toxic chemical vapors or dust. In general, use the hood whenever feasible to limit exposure to laboratory workers. Confirm adequate hood performance before use; keep hood closed at all times except when adjustments within the hood are being made; keep materials stored in hoods to a minimum and do not allow them to block vents or air flow. Leave the hood "on" when it is not in active use, if toxic substances are stored in it or if it is uncertain whether adequate general laboratory ventilation will be maintained when it is "off".

Vigilance: Be alert to unsafe conditions and see that they are corrected when detected.

Waste disposal: Deposit chemical waste in appropriately labeled chemically compatible receptacles and follow USU Hazardous Waste Guidelines. The following chemicals will not be discharged to the sewer: concentrated acids or bases, toxic, malodorous, lachrymatory explosives, re-actives, or flammable substances; or any substances which might interfere with the biological activity of waste water treatment plants, cause structural damage or obstruct flow. Consult the EH&S Office if you have disposal questions on a particular chemical waste.

Working alone: Avoid working alone in a building; do not work alone in a laboratory if the procedures being conducted are hazardous.

APPENDIX F

Acronyms and Definitions

Acronyms

ECOB-East Campus Office Building
EH&S-Environmental Health and Safety Office
SDS-Safety Data Sheets
USU- Utah State University

Definitions

Chemical: any element, chemical compound or mixture of elements and/or compounds.

Chemical manufacturer: an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name: the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

Combustible liquid: any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common name: any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

Compressed gas:

- (i) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F (21.1 deg. C); or
- (ii) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F (54.4 deg. C) regardless of the pressure at 70 deg. F (21.1 deg. C); or
- (iii) A liquid having a vapor pressure exceeding 40 psi at 100 deg. F (37.8 deg. C) as determined by ASTM D-323-72.

Container: any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. Pipes or piping systems, engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Distributor: a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee: a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer: a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Explosive: a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or exposed: an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Flammable: a chemical that falls into one of the following categories:

(i) **Aerosol, flammable:** an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;

(ii) **Gas, flammable:** (A) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or (B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;

(iii) **Liquid, flammable:** any liquid having a flashpoint below 100 deg. F (37.8 deg. C), except any mixture having components with flashpoints of 100 deg. F (37.8 deg. C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

(iv) **Solid, flammable:** a solid, other than a blasting agent or explosive as defined in 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint: the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Hazardous chemical: any chemical which is a physical hazard or health hazard.

Hazard warning: any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered.)

Health hazard: a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard.

Label: any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Material safety data sheet (MSDS): written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of 29CFR1910.1200.

Organic peroxide: an organic compound that contains the bivalent -O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer: a chemical other than a blasting agent or explosive as defined in 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard: a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Produce: to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

Pyrophoric: a chemical that will ignite spontaneously in air at a temperature of 130 deg. F (54.4 deg. C) or below.

Unstable (reactive): a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use: to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Water-reactive: a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

Work area: a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace: an establishment, job site, or project, at one geographical location containing one or more work areas.

Chemical	Class	Active Ingredient	EPA #
Admire pro	4A	Imidacloprid	264-827
Asana		3 esfenvalerate	59639-209
Assail	4A	Acetamiprid	8033-141-70506
Avaunt		22 Indoxacarb	279-9587
Baythroid	3A	Beta Cyfluthrin	264-840
Belt SC	28	Flubendiamide	264-1025
Exirel		28 cyantraniliprole	279-9615
Mustang		11 Zeta cypermethrin	264-826
Sivanto	4D	Flupyradifurone	264-1141
Ultor		23 Spirotetramat	264-1065
Elite 45DF		3 Tebuconazole	264-749
Flint		19 Polyoxin D Zinc Salt	70506-395
Fontelis		7 penthiopyrad	352-834
Gem		11 Trifloxystrobin	264-826
Luna experience	3, 7	Fluopyram, Tebuconazole	264-1091
Luna sensation	7, 11	Fluopyram, Trifloxystrobin	264-1090
Merivon	7, 11	Fluxapyroxad	7969-310
PhD		19 Polyoxin D Zinc Salt	70506-395
Altacor		28 chlorantraniliprole	279-9607
Makaze		9 Glyphosate isopropylamine salt	34704-890
Alion		29 Indaziflam	264-1106
2-4,d		4 Dimethylamine salt (2,4-d)	42750-19-5905
Prowl		3 Pendimethalin	241-418