

HAZARD COMMUNICATION PLAN

Clemson University

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HAZARD COMMUNICATION FOR NON-LABORATORIES

The Hazard Communication Standard 29 CFR 1910.1200 (HCS) implemented by the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor requires employers to provide information to employees regarding the hazardous chemicals in the workplace and the hazardous properties of these chemicals. This information must be disseminated through a hazard communication program involving labeling, safety data sheets, employee training, employee access to written records, and a written hazard communication plan. The implementation of the Hazard Communication Program will ensure all employees the “right-to-know” the hazards and identities of the chemicals with which they work.

The HCS applies to any chemical that is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use, or in a foreseeable emergency. **Hazard Communication applies to faculty, staff, interns, students, co-ops, apprentices, trainees, and all other temporary, part time, and full-time workers on any CU campus if job tasks include a potential exposure to hazardous chemicals.** In accordance with OSHA regulations, laboratory employees are covered under Clemson University’s Chemical Hygiene Plan and are not included in the Hazard Communication Program. The OSHA standard, 29CFR 1910.1200 sets out a procedure for hazard determination and any substance determined to be hazardous under this procedure is subject to the program. The definition of “hazardous chemical” under the standard is any chemical which is classified as a physical hazard or health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified. For determination of chemical hazards associated with products not synthesized at Clemson University, personnel should rely on the evaluation performed by the chemical manufacturer or importer transmitted via Safety Data Sheets.

The complete Hazard Communication Standard can be found at:

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10099

Clemson University’s Hazard Communication Program is designed to:

- Reduce the likelihood of injury or illness to employees by implementing specific procedures to identify and evaluate the chemical hazards in the workplace and then inform and train employees on those hazards.
- Ensure that all individuals at risk are adequately informed about the chemicals used and stored in their workplaces.
- Outline procedures for all employees working with hazardous chemicals.

The following Hazard Communication Plan was written to comply with the OSHA Hazard Communication Standard.

HAZARD COMMUNICATION RESPONSIBILITIES:

Clemson University’s Hazard Communication Program for all departments and campus locations are overseen by Occupational and Environmental Safety (OES) Supervisory Personnel are responsible for:

Supervisory Personnel are responsible for:

1. Creating and maintaining an inventory of all hazardous chemicals stored or used within their area of responsibility.
2. Ensuring that all hazardous chemicals/products are properly labeled, and that these labels are not removed or defaced.
3. Maintaining copies of Safety Data Sheets (SDS) for each hazardous chemical in the workplace and ensuring that the SDS documents are readily available to employees. See Section III (b) of SAFETY DATA SHEETS (SDS) for detailed information.

4. Identifying employees under their supervision who may be exposed to hazardous chemicals under normal operating conditions or in a foreseeable emergency based on hazard assessment.
5. Informing employees of: Any operations in their work area where hazardous chemicals are present; the location and availability of the written Hazard Communication Plan; the chemical inventory; SDS; and the requirements of the Hazard Communication Standard.
6. Providing employees with training regarding hazards or practices specific to their work area at the time of their assignment and whenever a new hazard is introduced into their work area. Training records should be maintained through the online database or kept with Department Supervisors or designated Departmental Safety employees. (See Attachments that may be used as tools for this level of training.)
7. Determine the required personal protective equipment (PPE) for the procedures and materials in use in their area. Contact OES personnel for assistance in the selection of PPE.
8. Ensure the proper PPE is made available to employees.
9. Ensure the employees are trained in the use of PPE, the PPE is properly maintained, and the employees wear the appropriate PPE where necessary/required.
10. Develop safe procedures for work in their areas, as well as written procedures for emergencies.
11. Inform outside contractors of chemical (or other) hazards that they may be exposed to while working at Clemson University. Inform them of the location of the SDS documents.
12. Inform employees about proper performance of non-routine tasks that could pose chemical hazards.

Supervisor or a designated employee is responsible for:

1. Ensuring that SDS documents are available and readily accessible for all hazardous chemicals in their work area. See Section III (b) of SAFETY DATA SHEETS (SDS) for detailed information.
2. Ensuring that employees have received all information and training requirements outlined in Section of this Plan. Online and classroom training provided by OES covers only #'s 1, 7, and 8 of Section V. *All other training requirements must be provided by the supervisor designated training coordinator, or designated person within a department.
3. Maintaining training records for their employees. These records must include date, location, facilitator, list of attendees and description or outline of the material covered in the training session. These records must be retained indefinitely and must be readily available to regulatory or OES inspectors upon request.

Employees are responsible for:

1. Planning and conducting each operation according to the Hazard Communication Program.
2. Using the required personal protective equipment. Properly maintaining and storing the PPE assigned to him/her.
3. Reporting any exposures, injuries, or safety problems to his or her supervisor.
4. Reviewing SDS documents prior to using a chemical for the first time, then reviewing periodically thereafter as necessary.
5. Not removing or defacing labels on incoming chemical containers.
6. Attend required Hazard Communication training.
7. Providing supervisor with records or any training taken online.

Industrial Hygiene Manager or OES Designee is responsible for:

1. Development of the written Hazard Communication Program.
2. Develop a Hazard Communication training program.
3. Providing technical support to the departments covered by the Hazard Communication Program.
4. Conduct periodic safety reviews.
5. Provide technical assistance in the selection of personal protective equipment.
6. Review Hazard Communication Program at least annually and make necessary changes.

Contractors are responsible for:

Developing and implementing their own Hazard Communication Program and informing Clemson University personnel of any chemical hazards they bring with them. They must also ensure the proper handling, use, and storage of these chemicals and provide access to SDS documents for them. Outside contractors must provide University project managers and OES with information concerning hazardous materials to be brought into any Clemson facility to perform contracted work before the materials are brought onto campus. **Attachment F may be filled out by the contractor and copies sent to the University's contracting official(s) (project managers, Department heads, etc.) and OES.**

I. HAZARDOUS CHEMICALS INVENTORY

The supervisor or designee is required to maintain a list of all hazardous chemicals known to be present in each work area (i.e., maintenance shop, storage buildings, etc.) and update the list as necessary to ensure that the list stays current.

- The inventory must identify each hazardous chemical by the primary name on the label (either chemical name or product name, but must be consistent; i.e. if you choose to list chemicals by the common or product name, you must do so with all chemicals listed on the inventory), the manufacturer or distributor of the chemical, the location (Building, room number, etc.), and date received (if known).
- All employees must have access to the chemical inventory. The inventory must be kept in the work area in a suitable format, such as on a log sheet, an excel spreadsheet, or an electronic format. (An example option is to have immediate electronic access or to print the information from ChemTracker in BioRAFT/SciShield if all SDS documents are provided in ChemTracker.)
- This inventory shall list all hazardous chemicals (this includes compressed gases) found in the work area.

******The above information is in addition to the requirement that the inventory must be submitted via ChemTracker in BioRAFT/SciShield. Chemicals products are to be added or removed throughout the calendar year as new products are acquired or used up/disposed. The information in ChemTracker must be accurate no later than February 1st of every calendar year. No other submittals will be accepted. An excel sheet cannot be uploaded into BioRAFT as the information must be edited through ChemTracker.

Questions or clarifications are provided by OES via biorafrtrshelp@clemson.edu

II. LABELING REQUIREMENTS

The supervisor or designee must ensure that all containers of hazardous chemicals in his/her area of responsibility are properly labeled. The chemical manufacturer/distributor is required to provide labels on all hazardous chemicals shipped. These labels should include a product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s), and the name, address, and telephone number of the manufacturer, importer, or other

responsible party (see Attachment H). Portable containers of working solutions must also be labeled appropriately. Labels must be legible and must be prominently displayed on the container. Labels on incoming containers must not be defaced or removed until the container is empty. At no time is it acceptable to use (or reuse) any food or beverage containers for chemical storage. Once the container is empty, the guidelines in the University Hazardous Waste Management Manual should be followed for container disposal. Guidance for container disposal is available on the OES website at this link:

<https://media.clemson.edu/research/oes/industhygiene/Fact%20Sheets/Container%20Disposal%20Fact%20Sheet%204-13-23.pdf>

Whenever chemicals are transferred into another container, the container must be labeled with the full chemical name, appropriate hazard warnings, and the manufacturer's name, address and telephone number. This is known as a workplace label. The label must include the product identifier/full chemical product name; appropriate hazard warnings-signal words, precautionary statement, hazard statement, pictograms, symbols, or a combination that provides the general information regarding the physical and health hazard of the chemical; as well as the manufacturer's name, address, and telephone number. Workplace labels need to be in English. In the event that labels must be created, the labels must be durable, legible, and must be firmly affixed to the container(s). If any Clemson department would like to propose and implement other alternate workplace labeling options, that meet the Hazard Communication labeling requirements as defined by OSHA, OES must be contacted for review and give approval before the alternate workplace labels are implemented. All Labels should be replaced whenever they fade, peel, or otherwise deteriorate and become difficult to read. All chemicals should be dated upon receipt. No chemical should ever be used without completely reading the label. Contents of all vessels, pipelines, storage tanks, etc. must be adequately labeled.

<https://www.clemson.edu/finance/oes/>

<https://www.clemson.edu/finance/oes/occsafetyhealth/industhygiene/programs/hazcom.html>

The link above provides additional information from OES on Hazard Communication

<https://www.osha.gov/sites/default/files/publications/OSHA3636.pdf>

(OES must be contacted for approval and guidance for alternate workplace labeling options, as defined by OSHA.)

Products that are synthesized at Clemson and distributed outside of the University must be labeled in accordance with OSHA's Hazard Communication Standard. If those CU synthesized products contain hazardous chemicals in concentrations greater than one percent (or 0.1% for carcinogens), it is the responsibility of the laboratory synthesizing the product to develop and distribute the SDS. A SDS must be developed and sent with any product.

If shipping any hazardous chemicals from Clemson University, labeling must comply with the 2012 HCS, must be shipped with a SDS, and the personnel shipping the material must have completed the CU approved Hazardous Materials Transportation and Shipping Training and have received certification prior to shipping. Further information regarding labeling may be found in Appendix C to 29CFR1910.1200 – Allocation of Label Elements.

- **Signal Words** are used to indicate the relative level of severity of a hazard. It alerts the user to a potential hazard. There are only two words allowed: "Danger" and "Warning". Danger is used for more severe hazards. Warning is used for less severe hazards. Only one signal word will appear on the chemical label. Not all labels will have a signal word; some chemicals are not hazardous enough to require that a signal word appear on the label.
- **Hazard Statements** are assigned to a hazard class and category that describes the nature of the hazard based on the chemical hazard classification. For example, a hazard statement may be "fatal if swallowed" or "toxic in contact with skin."

- **Precautionary Statements** describe the recommended measures to be taken to minimize or prevent adverse effects from exposure to a hazardous chemical or improper storage or handling of a hazardous chemical. Some examples of precautionary statements are “if swallowed call poison control” or “store away from other materials.”
- **Pictograms** are intended to convey specific information about the hazards of a chemical. Pictograms will have a black picture atop a white background within a red square frame set on a point. There are nine pictograms under the 2012 HCS, but only eight are enforced by OSHA. The environmental pictogram for aquatic toxicity is not mandatory because OSHA does not have jurisdictional authority. **See Attachment G.**

III. SAFETY DATA SHEETS (SDS)

III (a) Definition and the Specific Sections of a SDS document:

The purpose of Safety Data Sheets (SDS) is to provide employees with detailed information of the potential hazards associated with materials used or stored in their work area. A SDS also advises employees on the appropriate way to handle hazardous chemicals, what PPE is required for handling the chemical, how to properly store the chemical, information on handling spill cleanup, etc. Per the revised 2012 HCS, all SDS must have a standardized format organized into the following 16 sections:

SDS 16 Sections:

Section 1: Product Identification

Section 2: Hazards (s) Identification

Section 3: Composition and Information of Ingredients

Section 4: First-aid Measures

Section 5: Fire Fighting Measures

Section 6: Accidental Release Measures

Section 7: Handling and Storage

Section 8: Exposure Controls and Personal Protection (PPE)

Section 9: Physical and Chemical Properties

Section 10: Stability and Reactivity

Section 11: Toxicological Information

Section 12: Ecological Information

Section 13: Disposal Considerations

Section 14: Transportation Information

Section 15 Regulatory Information

Section 16: Other Information

III (b) Requirements for Proper Management and Accessibility of SDS Documents:

A Safety Data Sheet (SDS) must be kept for every hazardous chemical used, and the SDS must be readily available to employees at all times, without any barriers that would prevent access to the information. Any employee may request a printed, hard copy for any SDS.

Each SDS should be reviewed by all personnel who will be using the chemical before the chemical is used. The area supervisor, manager, or departmental designated safety person is responsible for acquiring and updating SDS documents for all hazardous chemicals found in their work area.

OES recommends that SDS documents be reviewed at least every 3 years to ensure that those are the most current revisions available. For chemicals products when there have been revisions made to the SDS, the current SDS should be inserted/linked and the old SDS is archived for future reference. To obtain a specific SDS, contacting the manufacturer or distributor may be a good option. **(See Attachment A)**. For chemicals purchased locally from retail stores, the SDS should be requested from the retailer.

“Readily accessible” means that no barriers can exist that would impede immediate employee access in each workplace and work area. Electronic access and other alternatives to maintaining printed paper copies of the SDS are permitted, as long as no barriers to access are created by such electronic options in each workplace and work area. OES may ask an employee to demonstrate that he/she does have readily available access, without barriers, either in an electronic format or a printed, hard copy. Due to this requirement, some areas will maintain paper copies. (Additional details in bullets below.)

- For those areas and groups that are able to meet the requirements to maintain digital electronic copies, those employees that have a mobile device with consistent internet connection, the SDS must be available for every product in the ChemTracker module of BioRAFT/SciShield or a web browser search. As long as everyone has access to a computer, or mobile device with consistent internet availability, then an electronic version of the SDS may be searched via ChemTracker inventory or by the search feature in BioRAFT/SciShield; searched on the specific manufacture’s website; or searched through a web browser, such as Google.
- When a computer or mobile device is not available, or when internet connectivity is not consistent, or when maintaining a digital/electronic format creates a barrier for the employee to have readily available accessibility to a SDS document, then maintaining hard, printed copies are required. For those locations, areas, and groups that must maintain hard copies, OES recommends that SDS documents be kept in a convenient location and filed alphabetically by either chemical name, common name, number, etc. (use a uniform system for all SDS documents filed in an area).
- In the event of a natural disaster (such as a tornado, earthquake), relaying information of the hazards and additional details from a SDS may be communicate over the phone.

While any MSDS’s are still in circulation, the supervisor must implement a continual review to obtain the SDS once it is available from the manufacturer. The MSDS does not have a specific outline of sections (as a SDS document does), though the MSDS does contain similar information. Overtime, the MSDSs will be obsolete and only the SDS will be in circulation.

IF you are only able to find a MSDS at this time and are having issues locating a current SDS, you may contact OES for assistance. BioRAFTrshelp@clermson.edu

IV. EMPLOYEE TRAINING AND INFORMATION

Employers must provide employees with effective information and training on hazardous chemicals that are located in their work area at the time of their initial assignment and whenever a new physical or health hazard is introduced into the work area.

The OES online and/or classroom training covers #1, #7, an #8 of Section V. The online training is located on the

OES website <https://www.clemson.edu/finance/oes/occsafetyhealth/industhygiene/programs/hazcom.html>

All other training requirements must be provided by the department/division supervisor or designated training coordinator. Attachment B may be used for the department/division/group for their documentation of the employees review with the supervisor for specific job task and hazards. <https://www.osha.gov/Publications/OSHA3636.pdf>

OES must be contacted for approval and guidance for alternate workplace labeling options, as defined by OSHA.)

Employees must be informed of:

1. The requirements of the Hazard Communication Standard (29CFR 1910.1200).
2. The location and availability of the written Hazard Communication Plan.
3. Physical and health hazards of chemicals in the work area and their locations.
4. Location of the hazardous chemicals inventory and the Safety Data Sheets for all hazardous chemicals in their work area.
5. Methods and observation techniques used to detect the presence or release of a hazardous chemical.
6. How to lessen or prevent exposure to these hazardous chemicals through usage of controls, work practices, and personal protective equipment (PPE).
7. How to use the information provided on the SDS documents.
8. How to read and understand labels.
9. Contingency plans for medical and accident response.
10. The proper use, maintenance, and storage of any PPE required.
11. Procedures implemented to provide employee information about chemical hazards for non- routine or special tasks.

See Attachments B, C, and D

HAZARD DETERMINATION

There are various types of chemical hazards, for classification purposes the various types are defined as Physical Hazards, Health Hazards, Simple Asphyxiant, Combustible Dust, Pyrophoric Gas, and Hazards Not Otherwise Classified (HNOC). By completing an inventory listing these chemicals and reviewing the SDS documents, these

- **Physical Hazard**
A physical hazard is defined as a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, solids); oxidizer (liquid, solid, or gas); self-reactive pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. There are 16 physical hazard classes and their associated hazard categories, which can be located in Appendix B to 29CFR 1910.1200 – Physical Criteria.
- **Health Hazard**
A health hazard is defined as a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. There are 10 health hazard classes and their associated hazard categories defined in Appendix A to 29CFR 1910.1200 - Health Hazard Criteria.
- **Simple Asphyxiant**
A simple asphyxiant means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

- **Combustible Dust**

OSHA does not define a combustible dust in the 2012 HCS; however, the definition can be inferred from other OSHA publications and emphasis programs regarding combustible dusts. A combustible dust may be defined as a combustible particulate solid that presents a fire or deflagration hazard when suspended in air or some other oxidizing medium over a range of concentrations, regardless of particle size or shape.

- **Pyrophoric Gas**

A pyrophoric gas is defined as a chemical in a gaseous state that will ignite spontaneously in air at temperature of 130°F (54.4°C) or below.

- **Hazard Not Otherwise Classified**

A hazard not otherwise classified means an adverse physical or health effect not identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in the 29CFR1910.1200 standard

V. PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) includes gloves, safety glasses, goggles, face shields, aprons, respirators, etc. The PPE necessary for protection while being exposed to hazardous chemicals, flying particles, damaging light sources, etc. must be provided to employees. Proper use of protective equipment is essential to prevent exposure. Supervisors must instruct employees as to what personal protective equipment must be worn. This equipment must be kept clean and stored in such a manner that it is protected from contaminants, dirt, dust or any atmosphere that might cause damage or deterioration of the equipment. Protective clothing should always be free from holes, rips, or tears.

- Gloves should be selected based on the chemicals being handled, or the task being performed.
- Eye protection, safety glasses or goggles, must meet ANSI (American National Standards Institute) Z87.1 standards.
- Safety goggles should always be worn whenever a potential chemical splash hazard or flying particle hazard exists (a face shield might also be required for certain activities).
- Goggles used for this purpose should have indirect vents (vents should be covered). Eye protection, safety glasses or goggles, must meet ANSI (American National Standards Institute) Z87.1 standards.
- They must fit well, be reasonably comfortable, and not interfere with vision.
- If an employee wears prescription lenses, those prescription glasses must be worn in addition to safety glasses or goggles whenever eye protection is required, unless the prescription glasses are approved for safety (ANSI Z87.1).
- Safety glasses must always have side shields.
- Departments may choose to cover all or part of the purchase price of prescription safety glasses. Contact Procurement for information about the University contract for a local provider.
- If the use of respirators is required for specific tasks, employees must be enrolled in the University Respiratory Protection Program. This covers all type of respiratory protection equipment, including dust/mist type respirators. Contact OES for information on the Respiratory Protection Program.
- No employee is allowed to wear a respirator until approval is given by OES.
- Chemically resistant coveralls or aprons should be used when needed and type/material selected according to materials being handled/contacted.

VI. NON-ROUTINE TASKS

Employees performing “non-routine” tasks can be exposed to chemicals from unusual and unsuspected sources. These “non-routine” tasks may include, for example, periodic tank or boiler cleaning or the replacement of seals and gaskets. Written procedures shall be developed for every “non-routine” task by the supervisor of the employees who will perform the task. The information will include chemical hazards associated with the performance of the tasks and appropriate protective measures required to perform the task safely. The procedures shall be included (or specific location referenced) in the local copy of the Hazard Communication Plan. OES will provide guidance and advice upon request. **See Attachment D**

VII. Spills and Fires

Clemson University Fire Department is the Hazardous Materials Response Team for main campus. In the event of a large spill, unknown spill, or fire contact CUFD by dialing 911. For other campus locations, dial 911 In the event of a large spill, unknown spill, or fire. Statewide, all locations must follow the Environmental Remediation SOP **which is available on the OES website.**

<https://media.clemson.edu/research/oes/envcomp/CU%20Environmental%20Remediation%20SOP%20OES%20letterhead%2010-2022.pdf>

VIII. Proper Disposal

Hazardous materials and chemical products, including commercial products, must be properly disposed of at all times and additional labeling and storage requirements are to be followed. Refer to the Hazardous Waste Management on the OES website for more information.

<https://www.clemson.edu/finance/oes/hazmaterials/hazardouswaste/index.html>

OES Contacts:

For additional information regarding Hazard Communication or assistance with the selection of PPE, please contact:

Anne Kogut Industrial Hygiene Manager – akogut@clemson.edu (864)656-2507

*** The following attachments, A-H, are tools to assist users with the implementation of the Hazard Communication Plan.**

Attachment A

CLEMSON UNIVERSITY REQUEST FOR SAFETY DATA SHEET

The Occupational Safety and Health Administration Hazard Communication Standard (29CFR 1910.1200) requires us to maintain and distribute safety data sheets (SDS) for all hazardous chemicals used by our employees. To fulfill these requirements, we request a completed SDS for the following chemicals.

NAME: (Last, First, MI)		DATE:	
DEPARTMENT:		BLDG/RM NO.	
PRODUCT NAME	PRODUCT NUMBER	MANUFACTURER	CAS NUMBER

SDS(s) should be sent to the address provided below on or before the date the product(s) will be delivered. We also request any additional information you currently have, or may acquire in the future, concerning the safety and health of these products be sent to:

Attachment B

Training Item	Yes	Supervisor's Initials	Employee's Initials
The location, availability, and requirements of the Hazard Communication Plan has been made known to me.	<input type="checkbox"/>	_____	_____
The location and availability of the chemical inventory for my area was made known to me.	<input type="checkbox"/>	_____	_____
The location and availability for the Safety Data Sheets (SDS) for the chemicals that I will be working with was made known to me. An explanation of how to use the information on the SDS was provided to me.	<input type="checkbox"/>	_____	_____
I was informed of the health and physical hazards and location of the chemicals in my work area. Any special precautions required for chemicals used in my area were also explained to me.	<input type="checkbox"/>	_____	_____
Any Personal Protective Equipment required for chemicals used in my area was provided to me and its proper use and maintenance explained.	<input type="checkbox"/>	_____	_____
Training on reading and understanding labels was provided.	<input type="checkbox"/>	_____	_____
Methods to lessen or prevent exposure through administrative, engineering, and the use of protective equipment were reviewed.	<input type="checkbox"/>	_____	_____
Methods and observation techniques used to detect the presence or release of a hazardous chemical were explained.	<input type="checkbox"/>	_____	_____
Contingency plans for medical, accident, and spill response were explained.	<input type="checkbox"/>	_____	_____
Individual employee's responsibilities were reviewed and made known to me.	<input type="checkbox"/>	_____	_____

Hazard Communication Training

Printed Employee Name: _____

I certify that the above listed training was provided to me, and that understand the Hazard Communication Program and training and agree to abide by the policies and procedures set forth in the Hazard Communication Plan.

Signature of Employee

Date

Signature of Department Head/Supervisor/Trainer

Retain all training records within your department. Provide a copy of the training records to the Department Manager and OES. A list of employees trained may be provided rather than individual sheets, if the employees are provided the training as a group and all of the information listed above is covered.

ATTACHMENT D

TRAINING FORM FOR NEW HAZARDS AND NON-ROUTINE TASKS

Hazardous Chemical or Material	Date Trained	Employee Name	Clemson Email	Supervisor	Training Provided by

Attachment E

Assigned Responsibilities for The Hazard Communication Standard Requirement

Department name: _____

Location(s) covered by these assigned responsibilities: _____

A. HAZARDOUS CHEMICALS LIST: Responsible for checking all chemicals in the workplace and listing those hazardous chemicals as required:

Name: _____ Position: _____

B. SAFETY DATA SHEETS: Responsible for obtaining and maintaining SDS documents for all hazardous chemicals in the workplace:

Name: _____ Position: _____

C. LABELING: Responsible for labeling identity and hazard info on workplace containers:

Name: _____ Position: _____

D. EMPLOYEE TRAINING: Responsible for conducting training:

Name: _____ Position: _____

E. NON-ROUTINE TASKS: Responsible for appraising and preparing employees for non-routine tasks:










Name: _____ Position: _____

Department Head/Supervisor Signature

Date



Attachment G

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> ▪ Flammables ▪ Pyrophoric ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactive ▪ Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> ▪ Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> ▪ Explosives ▪ Self-Reactive ▪ Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> ▪ Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> ▪ Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> ▪ Acute Toxicity (fatal or toxic)

Attachment H

Sample Label

		(800) 321-OSHA (6742)	
SAMPLE LABEL			
PRODUCT IDENTIFIER		HAZARD PICTOGRAMS	
CODE _____			
Product Name _____			
SUPPLIER IDENTIFICATION		SIGNAL WORD	
Company Name _____		Danger	
Street Address _____			
City _____ State _____		HAZARD STATEMENT	
Postal Code _____ Country _____		Highly flammable liquid and vapor. May cause liver and kidney damage.	
Emergency Phone Number _____			
PRECAUTIONARY STATEMENTS		SUPPLEMENTAL INFORMATION	
Keep container tightly closed. Store in cool, well ventilated place that is locked.		Directions for use	
Keep away from heat/sparks/open flame. No smoking.			
Only use non-sparking tools.		_____	
Use explosion-proof electrical equipment.		_____	
Take precautionary measure against static discharge.		_____	
Ground and bond container and receiving equipment.		Fill weight: _____ Lot Number _____	
Do not breathe vapors.		Gross weight: _____ Fill Date: _____	
Wear Protective gloves.		Expiration Date: _____	
Do not eat, drink or smoke when using this product.			
Wash hands thoroughly after handling.			
Dispose of in accordance with local, regional, national, international regulations as specified.			
In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO ₂) fire extinguisher to extinguish.			
First Aid			
If exposed call Poison Center.			
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.			