# Hazard Communication Plan

Prepared by Lara Armstrong, October 2019

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Hazard Communication for Non-Laboratorians

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 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” regarding 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. 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 [https://www.osha.gov/dsg/hazcom/2012standard.html](https://www.osha.gov/dsg/hazcom/2012standard.html)

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.
**I. Hazard Communication Responsibilities**

Clemson University’s Hazard Communication Program is overseen by the University’s Environmental Program Manager, Lara Armstrong, who reports to the Director of Environmental Safety.

Supervisory Personnel are responsible for:

- Creating and maintaining an inventory of all hazardous chemicals stored or used within their area of responsibility.
- Ensuring that all hazardous chemicals/products are properly labeled, and that these labels are not removed or defaced.
- Maintaining copies of Safety Data Sheets (SDS) for each hazardous chemical in the workplace and ensuring that the SDS are readily available to employees.
- 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.
- 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.
- 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.
- Determine the required personal protective equipment (PPE) for the procedures and materials in use in their area.
- Ensure the proper PPE is made available to employees.
- 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.
- Develop safe procedures for work in their areas, as well as written procedures for emergencies.
- 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.
- Inform employees about proper performance of non-routine tasks.

Supervisors and or a designated employee are responsible for:

- Ensuring that SDS are available and readily accessible for all hazardous chemicals in their work area.
- Ensuring that employees have received all information and training requirements outlined in Section V of this Plan. The ES online and/or classroom training covers #1, #7, an #8 of Section V. All other training requirements must be provided by the department/division supervisor or designated training coordinator.
• 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 ES inspectors upon request.

Employees are responsible for:

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

Environmental Program Manager is responsible for:

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

Contractors must develop and implement their own Hazard Communication Program and inform 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 for them. Outside contractors must provide University project managers and Environmental Safety (ES) 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 should be filled out by the contractor and copies sent to the University’s contracting official(s) (project managers, Department heads, etc.) and Environmental Safety.
II. 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 it stays current. The inventory must identify each hazardous chemical by the primary name on the label (either chemical name or product name, but it 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, and chemical abstract number (CAS), the location (Building, room number, etc.), quantity, and size of the container. The inventory must be kept in the work area in a suitable format, on a log sheet, or in electronic format (inventories kept in electronic format should be printed periodically (at least annually or if major changes in the inventory are made) and posted in the work area). This inventory shall list all hazardous chemicals (this includes compressed gases) found in the work area. This inventory must be submitted annually (by February 1st) via email to cheminventory@clemson.edu. The inventory must be submitted following a specific format via the chemical inventory worksheet. The forms are on the ES website: https://cufacilities.sites.clemson.edu/envsafety/chemInv  Conventional, academic, and research laboratories will work with Research Safety’s BioRaft program for submittals.

III. Labeling Requirements

The supervisor 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. (Once the container is empty, the guidelines in the University Hazardous Waste Management Manual should be followed for container disposal.)

Whenever chemicals are transferred into another container, the container must be labeled. 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, ES must be contacted for review and give approval before the workplace labels are implemented. All labels should be replaced whenever they fade, peel, or otherwise deteriorate so as to become difficult to read. No chemical should ever be used without completely reading the label. Contents of all vessels, pipelines, storage tanks, etc. must be adequately labeled. (https://cufacilities.sites.clemson.edu/envsafety/hazCom

and https://www.osha.gov/Publications/OSHA3636.pdf
ES 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 proper must be labeled in accordance with OSHA’s Hazard Communication Standard, if they contain hazardous chemicals in concentrations greater than one percent (or 0.1% for carcinogens). If shipping hazardous chemicals from Clemson University, labeling must comply with the 2012 HCS, must be shipped with a Safety Data Sheet, and the personnel shipping the material must have completed the appropriate training. 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.
IV. Safety Data Sheets

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. An 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:

Section 1: Identification
Section 2: Hazard(s) Identification
Section 3: Composition/Information on 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/Personal Protection
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: Transport Information
Section 15: Regulatory Information
Section 16: Other Information, including date of preparation or last revision

A Safety Data Sheet must be kept for every hazardous chemical used and must be readily available to employees at all times. The area supervisor or manager is responsible for acquiring and updating SDS for all hazardous chemicals found in their work area. Each SDS shall be reviewed by all personnel who will be using the chemical before the chemical is used in the workplace. Environmental Safety recommends that SDS be kept in a convenient location and filed alphabetically by either the chemical name, common name, number, etc. (use a uniform system for all SDS filed in an area). ES also recommends that SDS be reviewed at least every 3 years to ensure that they are current and the latest revisions are available.

For chemicals where there have been revisions made to the SDS, the current SDS should be inserted and the old SDS archived for future reference. To obtain a specific SDS, one may request it from the manufacturer or distributor (see Attachment A) or copy it from the website of the manufacturer if it is available online. For chemicals purchased locally from retail stores, the SDS should be requested from the retailer. A safety data sheet must be developed and sent with those products that are synthesized at Clemson and distributed outside of the University proper in accordance with OSHA's Hazard Communication Standard. If products contain hazardous chemicals in concentrations greater than one percent (or 0.1% for carcinogens), it is the responsibility of the party synthesizing the product to develop and distribute the SDS.
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 the SDS, though it does contain similar information. Over time, the MSDS will be obsolete and only the SDS will be circulation.

V. 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 ES online and/or classroom training covers #1, #7, an #8 of Section V. The online training is located on the ES website: https://cufacilities.sites.clemson.edu/envsafety/hazCom. All other training requirements must be provided by the department/division supervisor or designated training coordinator.

Employees must be informed of:

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 SDS of chemical products.
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 SDS, these chemicals can be identified.

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 stat that will ignite spontaneously in air at a 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.
VI. 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 made available to employees for their use. 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 standard.
- 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 standard.
- They must fit well, be reasonably comfortable, and not interfere with vision.
- If an employee wears prescription lenses, safety glasses or goggles must be worn over prescription glasses whenever eye protection is required unless the prescription glasses are approved safety glasses (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 Environmental Safety for information on the Respiratory Protection Program.
- No employee is allowed to wear a respirator until employee is enrolled in the Respirator Protection Program; contact ES for details.
- Chemically resistant coveralls or aprons should be used when needed and type/material selected according to materials being handled/contacted.

VII. 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. Environmental Safety will provide guidance upon request.

See Attachment D.

VIII. 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 or 656-2222.

Attachments

The attachments referenced earlier in this document can be found on the following pages and are tools to assist users with the implementation of the Hazard Communication Plan. If you have any questions about a particular attachment, please contact our Environmental Safety Program Manager.

Available attachments are:

- Attachment A – Request for Safety Data Sheet
- Attachment B – Hazard Communication Plan: Department/Division Level
- Attachment C – Hazard Communication Training Roster
- Attachment D – Training for New Hazards and Non-Routine Tasks
- Attachment E – Assigned Responsibilities for The Hazard Communication Standard Requirement
- Attachment F – Contractor Information
- Attachment G – HCS Pictograms and Hazards
- Attachment H – Sample Labels

For additional information regarding Hazard Communication, or with assistance with PPE selection, workplace labels, implementing Clemson University’s Hazard Communication Program, or additional guidance please contact ES staff.

Robin Newberry, Director of ES: wnewber@clemson.edu (864) 722-7215
Lara Armstrong, ES Program Manager: laraa@clemson.edu (864) 643-6042
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.

<table>
<thead>
<tr>
<th>Name:</th>
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<tr>
<td>Date:</td>
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<td>Bldg./Room:</td>
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<td>Dept. #</td>
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<tr>
<th>Product Name</th>
<th>Product No.</th>
<th>Manufacturer</th>
<th>CAS No.</th>
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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 A
## Hazard Communication Training: Department/Division Level

Check Yes to all that apply.

<table>
<thead>
<tr>
<th>Training Item</th>
<th>Yes</th>
<th>Supervisor’s Initials</th>
<th>Employee’s Initials</th>
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<td>The location, availability, and requirements of the Hazard Communication Plan has been made known to me.</td>
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<td>The location and availability of the chemical inventory for my area was made known to me.</td>
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<td>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.</td>
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<td>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.</td>
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<td>Any Personal Protective Equipment required for chemicals used in my area was provided to me and its proper use and maintenance explained.</td>
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<td>Training on reading and understanding labels was provided.</td>
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<td>Methods to lessen or prevent exposure through administrative, engineering, and the use of protective equipment were reviewed.</td>
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<td>Methods and observation techniques used to detect the presence or release of a hazardous chemical were explained.</td>
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<td>Contingency plans for medical, accident, and spill response were explained.</td>
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<td>Individual employee’s responsibilities were reviewed and made known to me.</td>
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**Supervisor Signature**

_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/Trainer** ___________________________ **Date** ____________

**Employee Name Printed (Signature Above):** ____________________________

*Retain all training records within your department. Provide a copy of the training records to the Department Manager and Training Coordinator. Information may be provided to the Environmental Safety by entering the appropriate data into the training database found at our website: [http://www.clemson.edu/facilities/envsafety/](http://www.clemson.edu/facilities/envsafety/)*

*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. (See Attachment C & Attachment B)*
Hazard Communication Training Roster

Facilitator: ___________________________  Date: ___________

Attendees:

<table>
<thead>
<tr>
<th>Name</th>
<th>Clemson E-Mail</th>
<th>Department/Zone</th>
<th>Supervisor</th>
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Training for New Hazards and Non-Routine Tasks

<table>
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<th>Chemical/Material</th>
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<th>Employee Name</th>
<th>Clemson E-Mail</th>
<th>Supervisor</th>
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</table>
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 SDSs 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 _____________
Contractor Information

Company Name: ____________________________________________

Address: _________________________________________________

Phone No. ________________________________________________

Fax No. __________________________________________________

Name of Clemson University Contracting Official: ______________

Department: ________________________________________________

Phone No: _________________________________________________

Project Location: __________________________________________

Project Start Date: _________________________________________

Project End Date: __________________________________________

List any hazardous chemicals/materials that are to be brought onto Clemson University’s campus, or to any Clemson University facility. Describe how these chemicals/materials are to be used as well as how they will be stored.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

A copy of this of this completed form must be sent to the Clemson University contracting official and the Environmental Safety prior to bringing any hazardous chemicals/materials onto Clemson University property.

Attachment F
<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flame</th>
<th>Exclamation Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogen</td>
<td>Flammables</td>
<td>Irritant (skin and eye)</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Pyrophorics</td>
<td>Skin Sensitizer</td>
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<tr>
<td>Reproductive Toxicity</td>
<td>Self-Heating</td>
<td>Acute Toxicity</td>
</tr>
<tr>
<td>Respiratory Sensitizer</td>
<td>Emits Flammable Gas</td>
<td>Narcotic Effects</td>
</tr>
<tr>
<td>Target Organ Toxicity</td>
<td>Self-Reactives</td>
<td>Respiratory Tract Irritant</td>
</tr>
<tr>
<td>Aspiration Toxicity</td>
<td>Organic Peroxides</td>
<td>Hazardous to Ozone Layer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flame Over Circle</th>
<th>Environment</th>
<th>Skull and Crossbones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxidizers</td>
<td>Aquatic Toxicity</td>
<td>Acute Toxicity (fatal or</td>
</tr>
<tr>
<td></td>
<td>(Non-Mandatory)</td>
<td>toxic)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas Cylinder</th>
<th>Corrosion</th>
<th>Exploding Bomb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gases Under Pressure</td>
<td>Skin Corrosion/Burns</td>
<td>Explosives</td>
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<tr>
<td></td>
<td>Eye Damage</td>
<td>Self-Reactives</td>
</tr>
<tr>
<td></td>
<td>Corrosive to Metals</td>
<td>Organic Peroxides</td>
</tr>
</tbody>
</table>
## SAMPLE LABEL

### PRODUCT IDENTIFIER

**CODE**
Product Name

### SUPPLIER IDENTIFICATION

**Company Name**
Street Address
City State
Postal Code Country
Emergency Phone Number

### PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
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.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Disposal of in accordance with local, regional, national, international regulations as specified.

**In Case of Fire:** use dry chemical (BC) or Carbon dioxide (CO₂) 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.

### SIGNAL WORD

Danger

### HAZARD PICTOGRAMS

- ![Flammable Icon](Image)
- ![Explosion Icon](Image)

### HAZARD STATEMENT

Highly flammable liquid and vapor. May cause liver and kidney damage.

### SUPPLEMENTAL INFORMATION

**Directions for use**

**Fill weight:** Lot Number
**Gross weight:** Fill Date: 
**Expiration Date:**

---

*Attachment H*
Sample Label: