

**HAZARDOUS CHEMICAL PROTECTION
COMMUNICATION
(RIGHT-TO-KNOW)
PLAN**

**Developed by the Office of Risk Management and Police
Services /
Environmental Health & Safety Division**

Of

MIDDLE GEORGIA STATE UNIVERSITY

And

Submitted to the

GEORGIA DEPARTMENT OF INSURANCE

Fire-Safety Division

STATE OF GEORGIA

Revised May 2016

MIDDLE GEORGIA STATE UNIVERSITY

Standard Operating Procedures

For

Hazardous Chemical Protection Communication

(Right-To-Know) Plan Administration

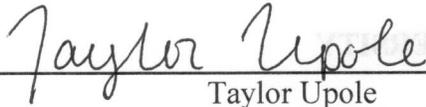


Dr. Christopher Blake

President of Middle Georgia State University

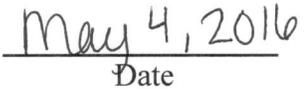


Date



Taylor Upole

Coordinator of Environmental Health and Safety



Date

Purpose Statement for Employees of Middle Georgia State University

This is your Hazardous Chemical Protection Communication (Right to Know) Plan (HCPC/RTK) which was developed by the Middle Georgia State University (MGA) EHOS Division. The purpose of this plan is: To inform MGA employees of their right to know that chemicals may be present in their work areas, to inform MGA employees of the potential hazards of the chemicals they may work with and to inform MGA employees how to protect themselves against hazards and/or potential hazards to promote safety in their work areas.

It is the EMPLOYEES responsibility to attend the RTK meetings and/or participate in the electronic presentations to assist in their understanding of their "Rights" and of their responsibilities in promoting safety in their work and work environments.

This plan fulfills the requirements of the GA Department of Insurance which requires a copy of the plan.

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Workplace Data

MIDDLE GEORGIA STATE UNIVERSITY EMPLOYER’S HAZARDOUS CHEMICAL PROTECTION COMMUNICATION/RIGHT TO KNOW COORDINATOR

Environmental Health and Occupational Safety Coordinator

Telephone: 478-934-3054

Office of Environmental Health and Occupational Safety Location: Cochran campus

Jackson Hall office 217

MIDDLE GEORGIA STATE UNIVERSITY’S CENTRAL SDS FILE

Location: Cochran Campus, Jackson Hall, office 217

For access call: (478) 934-3054

EMPLOYEE’S WORK AREA SDS FILE

Location: Within the employee’s immediate work area or in a centralized location defined by signage and maintained by the supervisor in charge of that department/area.

For access: Contact your immediate supervisor.

EMERGENCY PHONE NUMBERS FOR CHEMICAL SPILLS OR ACCIDENTS THAT OCCUR

Macon - Plant Operations, (478) 471-2782-----University Police: (478) 471-2414

Cochran - Plant Operations, (478) 934-3008-----University Police (478) 934-3002

Dublin - Plant Operations, (478) 275-6777 -----University Police (478) 274-7751

Eastman – Plant Operations, (478) 374-6707 -----University Police (478) 374-6403

Warner Robins – Plant Operations, (478) 929-6732-----University Police (478) 731-9901

FOR EMERGENCIES THAT OCCUR AFTER HOURS OR ON WEEKENDS

Please call University Police number for the campus you are on, listed above.

Preface:

OSHA'S Hazard Communication Standard ("HCS," "HazCom" or "Right-To-Know") is one of the most important and most frequently violated standards. It requires employers to inform their employees of the potential hazards of the chemicals they work with and how to protect themselves against these hazards.

Employers must provide information and training on hazardous chemicals present in their work area and whenever a new hazard chemical is introduced in their work area.

Training must include:

- *How to detect the presence or release of a hazardous chemical*
- *The physical and health hazards of each chemical*
- *How to protect themselves against these hazards*
 - *The details of Middle Georgia State University's (MGA) written Hazard Communication Program, including an explanation of how to use chemical container labels and Safety Data Sheets.*

Employees should understand:

- *That they have a right to know about potential chemical hazards in the workplace.*
- *That the chemical labels, SDS, and the University's written Hazard Communication Program give valuable information about these hazards and how to guard against them.*
- *That they must take the University's HazCom program seriously, and follow the University's rules for working with hazardous chemicals.*

The Hazardous Communication Standard sets forth guidelines and requirements in the following seven areas:

1. *Written Implementation Program (HCS) – Mandates that the University develop a written plan, the Hazard Communication Program detailing how the requirements of the HCS are implemented by the University. The Hazard Communication Program for Middle Georgia State University is available through the Office of Environmental Health and Occupational Safety. A copy of the program is available to each employee of Middle Georgia State University.*
2. *Hazard Determination – The employer must identify and maintain an inventory of all hazardous chemicals used in the work place. The supervisor of each work area must maintain the chemical list of all chemicals present in the work area. The list must be inclusive of the SDS list.*
3. *Safety Data Sheets – SDS is a document that gives detailed information about a material, including any hazards associated with the material. SDS's must be immediately available to employees at location where hazardous materials are used.*

4. *Chemical Labeling – That all chemicals in the workplace be labeled. The information which must be present includes the name of the chemical and the warnings about any hazards the material may present. This requirement may be implemented in a variety of ways. Three hazard identification systems are: NFPA (National Fire Protection Association), HMIG (Hazardous Materials Identification Guide) and the HMIS (Hazardous Materials Information System).*
5. *Employee Training – Requires that the employer provide to the employees training covering handling of hazardous materials, use and interpretation of both SDS's and HazCom label, and information about the HCS.*
6. *Trade Secrets – Sets forth the conditions under which a manufacturer may withhold information about a material, and the conditions under which such information must be divulged to health care providers.*
7. *Contractor Requirements – Includes procedures for informing on-site contractors of hazardous substances in the workplace to which their employees may be exposed. The contractor is to present the department supervisor and EHOS officer a list of hazardous chemicals that are to be brought onto the Middle Georgia State University's campuses.*

**HAZARDOUS CHEMICAL PROTECTION
COMMUNICATION (RIGHT TO KNOW) PLAN FOR
MIDDLE GEORGIA STATE UNIVERSITY**

SECTION 1. General Information

A. Purpose

The Hazardous Chemical Protection Communication Plan for *Middle Georgia State University* complies with the: (1) Federal Code-29 CFR 1910.1200, Hazard Communication plan; (2) Georgia Public Employees Hazardous Chemical Protection and Right to Know Act of 1988 as amended; (3) Georgia Department of Insurance Employee Chemical Protection and Right to Know Rules; and (4) The University System of Georgia Hazardous Chemical Protection Communication (Right to Know) Plan.

Note: This plan requires that seven areas be addressed:

1. Written Implementation Program
2. Hazard Determination
3. Safety Data Sheets
4. Chemical Labeling
5. Employee Training
6. Trade Secrets
7. Contractors Requirements

The understanding and use of the following two documents are required:

1. Safety Data Sheets (SDS): Relates needed information about the chemical.
2. Labeling: Primary and Secondary: Relates manufactures and Chemicals identify and appropriate hazard warnings.

B. Definitions

1. **Right to Know (RTK) Coordinator** – The individual who is assigned the responsibility associated with that title in this written Hazardous Chemical Protection Communication (RTK) Plan, and who is assigned the responsibilities of the Hazardous Chemical Protection Communication Coordinator in the Chapter 300-3-19 Rules.

2. **Work Area:** Means a room inside a building or structure, an outside area, or other defined space in a workplace where hazardous chemicals are produced, stored, or used and where employees are present in the course of their employment.
3. **Workplace:** Means an establishment or business of an employer at one geographic location at which work is performed by a state employee and which contains one or more work areas. In the case of an independent contractor or subcontractor, the workplace shall be defined as all work areas wholly owned or controlled by such independent contractor or subcontractor.
4. **Hazardous Chemical:** A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with the established scientific principles that acute or chronic health effects may occur in an exposed employee. This includes chemicals which are carcinogens, toxic or highly toxic, nephrotoxins, neurotoxins, agents which act on the hematopoietic (blood forming) systems, and agents which can damage the lungs, skin, eyes or mucous membranes.
5. **Supervisor or Area Supervisor:** Means the individual who is responsible for the supervision of the given work area. Supervisor may be used to denote division chair, department heads, directors, administrators, shift directors or leaders, etc.

C. Policy

All work areas of MGA are included within this program. The written program is available for review at the MGA RTK Coordinator's office (the Environmental Health & Occupational Safety Office) and can be found on-line on the Middle Georgia State University's Environmental Health and Safety web site found here:

[http://www.mga.edu/risk-management/docs/environmental-services/right-to-know/Right to Know Plan.pdf](http://www.mga.edu/risk-management/docs/environmental-services/right-to-know/Right%20to%20Know%20Plan.pdf) All new employees are required to take RTK training prior to starting their position. All MGA employees are required to take RTK training annually thereafter. Supervisors are the most knowledgeable of conditions and situations in their work areas; therefore shall be responsible for assuring their units compliance with this RTK program.

D. Responsibilities of Middle Georgia State University's Right To Know Coordinator

- A. Act as liaison between The University System Right To Know Coordinator and MGA on hazardous chemical issues;
- B. Resolve questions regarding applicability of the Chapter 300-3-19 rules to individual workplaces and work areas of MGA;
- C. Make arrangements for and/or provide for appropriate and adequate Right To Know training (basic training) to all employees of MGA;
- D. Make arrangements for and/or provide for area supervisors, written specific hazard communication programs (specific training) for each workplace in MGA. The workplace specific program should include information concerning the hazardous chemicals used, stored, or manufactured in that particular workplace. The area supervisor is responsible for the availability of the workplace – specific training for all employees in his area.

- E. Acquires the hazardous chemical inventory information from the area supervisor in each department.
- F. Disseminate updated SDS information provided by area supervisors so that all employees of that particular will have access to current SDS's for those hazardous chemicals used in their work;
- G. Coordinates information to the appropriate departments to assure that employees are made aware of and are properly trained in the uses and hazards associated with the chemicals to which they are exposed in their work area;
- H. Arranges information to appropriate departments for confirming that employee training on and notification of the use of hazardous chemicals in the work area are adequately documented;
- I. Organizes information to appropriate departments to insure that the supervisors provide employees with personal protective equipment appropriate to each work environment, and receive adequate training in the use and maintenance of this equipment;
- J. Review the hazardous chemical labeling practices of work areas which use secondary storage containers (at least annually).

E. Responsibilities of Middle Georgia State University Area Supervisors

- 1) Be knowledgeable of the hazard communication plan and its requirements.
- 2) To make sure that every employee in their area attends one of the Hazard Communication Training sessions or completes the BOR online training.
- 3) To assure the training records from each session are forwarded to the EHOS office for filing.
- 4) To set up a Hazardous Communication Station in their work area, containing access to a copy of the MGA Hazard Communication Program and the SDS file containing all of the current hazardous materials in their area.
- 5) Maintain a list of hazardous chemicals used or stored in their work area and report the updated inventory list each June and December to the EHOS office. Each chemical on the list must have a SDS on file.
- 6) To assure that all employees have unrestricted access to this station during their work shift.
- 7) To follow the correct hazardous material procurement procedure.

F. Procurement of Hazardous Chemicals

The person requesting a chemical should determine if the chemical is:

- 1) Presently being used or has been used in the department, or
- 2) A new chemical having never been introduced to the campus.

Before the purchase of new chemicals determine:

- a. Is the name on the chemical inventory list? Yes _____ No _____
- b. Is an updated SDS in the department SDS file? Yes _____ No _____

Purchase of NEW chemicals:

It is the responsibility of the person requesting its purchase to ascertain that adequate research has been done to determine if the chemical is hazardous according to law, if safer to alternatives are available, or if any special requirements such as licenses are needed prior to the purchase.

It is the responsibility of the person approving the purchasing requisition to notify the purchasing department to request the SDS with the purchase order. (This may be done by writing upon the purchasing requisition – PLEASE REQUEST THE SDS FOR THIS PRODUCT.)

The Receiving Department supervisor shall send the SDS with the order to the Division requesting the chemical or product. The Division supervisor must place a copy of the SDS in the departmental SDS file and forward the original to the EHOS office for the Middle Georgia State University campus master file. The name of the chemical must be added to the chemical inventory files.

All employees (full time/part time/student workers) who will work with the new chemical must review the SDS and become familiar with the hazards associated with the chemical. The employee's immediate supervisor is responsible for making sure they are familiar and comfortable with working with the new chemical. This process meets the Chemical Specific training requirement.

Failure to follow the above procedures will result in a "non-compliance" condition for the department and employees working with the new chemicals. If you have any questions regarding this procedure or need any assistance in training, please contact the EHOS office.

G. Safety Data Sheets

Supervisors, in keeping with their obligation to ensure a safe work environment, are responsible for maintaining the SDS file in his/her department for the review by the employees in their work areas during their work shift. The supervisor is responsible for the employee training in SDS interpretation. *Refer to SDS training information (Addendum 1).*

A central file of SDS for chemicals used in various work areas for Middle Georgia State University will be maintained by the RTK Coordinator in the office of Environmental Health and Occupational Safety.

Supervisors will be responsible for sending the RTK Coordinator a copy of the SDS for any new chemical received in his/her work areas. The supervisors will review the incoming SDS for new significant health/safety information and will be responsible for the advising the affected employees of such changes. The RTK Coordinator may assist with this review.

H. Hazard Chemical Inventory

It is the responsibility of the area supervisors of work areas using or storing chemicals to maintain the updated inventory of all chemicals in their work areas. [The SDS files must be inclusive of this list.]

I. Hazardous Chemical Inventory Reporting

Each supervisor shall provide to the University's RTK Coordinator each year on June 31st and each December 30th an updated list, by name, of all hazardous chemicals or products present at the department's workplaces. This list shall include, but not be limited to, all chemicals labeled as:

- Flammable or Combustible
- Explosive
- Combustible Liquid
- Corrosive
- Reactive
- Oxidizer
- Toxic
- Water Reactive
- Pyrophoric
- Organic Peroxide
- Compressed Gasses

This list shall include chemicals used in all science labs, allied health labs, all areas of plant operations (custodial, grounds, warehouse, water treatment, maintenance, etc.), art departments, drama departments, and dark room areas. Dark rooms are the responsibility of the assigned supervisor for its use otherwise it is the responsibility of the building

supervisor of the building which houses the dark room. NOTE: Some office supplies are hazardous materials (liquid paper, toner cartridges, etc.) and need to be reported if they are stored in large quantities in one room (such as in the case of toner cartridges in a closet) but do not have to be reported if just a few items exist in a desk for one user's supply.

The University's RTK Coordinator will provide to the University System RTK Coordinator, as requested by the Ga. Department of Insurance, in July and January of each year the list of all hazardous chemicals present at the University's workplaces.

J. Chemical Labeling

1. All hazardous chemicals introduced into the workplace by employers and used by employees shall be labeled in containers that meet the requirements of OSHA's (Occupational Safety and Health Administration) Hazard Communication Standard (29 CFR 1910.1200).

2. **Primary/Secondary Labels**

It is important to understand two types of containers and labels: primary and secondary. A primary label is one that is prepared by the manufacturer. These labels are required to meet all of the requirements established by OSHA; therefore, employers/consumers would be in full compliance if they elect to rely on the primary labels supplied by the manufacturer.

The primary containers label must include:

- Identity of the chemical (same as SDS) Appropriate hazard warnings
- Name and address of the manufacturer, distributor, or responsible party

If an employee transfers a chemical from a primary container into another container which will be used only in that facility, that container is called a secondary container. The work shift supervisor must ensure that secondary container labels include:

- Identity of the chemical (same as SDS) Appropriate hazard warnings
- Name and address of the manufacturer, distributor, or responsible party

Portable containers will be classified as secondary containers and must be labeled unless:

- Only one person uses the material, AND the material is used entirely in one shift. If workers on different shifts use the same container then it must be labeled.

If the secondary container is intended only for short term storage (one week or less), it shall be labeled with the name of the chemical and the date of filling vials and test tubes may have chemical labels affixed to the rack or container in which they are held, rather than on each vial or test tube, so long as every vial or test tube in the rack or container presents the same hazard. This type “temporary secondary containers” shall be labeled with the name of the chemical, the fill date, and initial of the preparer at a minimum.

3. **Unlabeled Containers**

If an employee finds an unlabeled or defaced labeled container in the workplace, it is considered to contain a hazardous chemical. The employee should immediately notify their supervisor. It is the responsibility of the supervisor to identify the contents. The supervisor should either request a label from the manufacturer, label the container using the SDS to transfer accurate information, or use a copy of a properly labeled container. If after exhausting all efforts to identify the contents, the supervisor shall call the RTK Coordinator for assistance in investigating and attempting to determine the contents. If such efforts fail to identify the contents, the supervisor will isolate the container from other chemicals; treat it as a container of hazardous chemicals whose properties are flammable, toxic and reactive. If the supervisor wishes to dispose of the container, it will be considered as hazardous waste and must be stored appropriately until disposal.

4. **Labeling Systems**

Labeling systems approved for use on the Middle Georgia State University Campuses are: the National Fire Protection Association (NFPA), and the Hazardous Material Identification Guide or System (HMIG or HMIS, respectively). Employees will be trained in these systems during their initial RTK training. *Refer to the Labeling and Labeling Systems Information.*

K. Removal of Hazardous Chemicals

Supervisors are responsible for preparing an inventory of any chemicals they wish to be disposed. The list should include the name of the chemical, quantity to be disposed, and type, size and condition of container. Supervisors must report this to the RTK Coordinator who will contact vendors and start the process for removal of the hazardous chemicals.

L. Close out Policy

The Area Supervisor, in conjunction with the Coordinator of EHOS, is responsible for

ensuring that all hazardous chemicals remaining on University property as a result of the departure of a faculty or staff member, or the vacating or reassignment of an assigned space, shall be managed in accordance with the following guidelines.

- Ensure that all containers are properly labeled and no temporary containers or samples are left.
- Ensure all unused, uncontaminated chemicals are disposed of properly or through an orphan chemical program.
- Ensure all chemical waste is accounted for and disposed of properly and all microbiological waste is decontaminated and disposed of properly.
- Ensure the transfer of ownership of all chemicals requiring a license to purchase and whom the chemical's use has been transferred.
- Ensure all gas cylinders are returned to suppliers.
- Inspect labs, stockrooms, refrigerators, fume hoods, etc. for chemicals and cleanliness.

M. Informing Contractors

It is possible for contractors doing work at MGA to:

- Expose employees of the University to hazardous chemicals used by the contractor's employees.
- Expose employees and sub-contractors of the contractor to hazardous chemicals used by the contractor's employees.
- Expose employees and sub-contractors to hazardous chemicals used by the University.

Any and all contracts with MGA which may involve exposure to hazardous chemicals must require the contractor to:

1. Notify the workplace supervisor at the worksite at least thirty days prior to the commencement of work, of any hazardous chemicals which will be used or stored at the work sites by the contractor or sub-contractor. (In emergency situations, the thirty day policy may be waived.)

The workplace supervisor will then:

- Disseminate this information to employees whose workplace is at the work site.
 - Upon request be provided with the chemical list and the SDS's for those hazardous chemicals.
 - Supply the RTK Coordinator with the information about the contract work.
 - Request assistance with SDS's etc. if needed.
2. Provide documentation, upon request. To the workplace supervisor and RTK Coordinator, that employees of the contractor have been provided with the information and training on the hazardous chemicals being used by the contractor or sub-contractor, at the work site.
 3. Director of Plant Operations will be responsible for contacting each contractor before work is started in the University to obtain and disseminate any information concerning chemical hazards that the contractor is bringing to the University's workplace.
 4. Prior to the commencement of work, the contractor must contact the EHOS office and provide written verification of satisfactory environmental data.

Section 2: Right to Know Training

A. Employee Training

Current Employees

Currently-employed persons of MGA must receive required Right to Know training. This law was put into effect June, 30th 1991. An annual Basic Training Update is required of each employee. Specific Training updates are presented to those employees who work in areas requiring specific training.

New Employees

Each new employee of MGA will attend a Right to Know training session which will present BASIC TRAINING. That BASIC TRAINING may normally be scheduled during New Employee Orientation. This training will include an on-line training module put out by the University System of Georgia (USG). This training module provides an overview of hazardous chemical protection laws, regulations, and policies in place in the University System, and a summary of the employee's rights in hazardous chemical protection. Any additional Right to Know policies established for MGA will be presented at this time. This training module can be accessed by going to the MGA.edu website and under offices and services go to Risk Management then click on Environmental and go to the RTK Global Harmonization link.

New part-time employees of MGA should complete BASIC Right to Know Training according to the following schedule:

*Part-time faculty: No later than the first (1st) semester of employment.

*Part-time staff: No later than the third (3rd) week of the semester in which the employee begins work.

A supervisor can contact the RTK Coordinator any time during the year to request a repeat Course of the BASIC training to be conducted in his/her department for the current employee's. This training may include viewing of the Right to Know Global Harmonization training module. Documentation of basic training completion is required (see "Documentation of Training").

B. Specific Training

- Chemical Specific Training
 - Area supervisors are responsible for the availability of the specific training for employees who will routinely be exposed to any hazardous chemical in the work area at MGA. The additional chemical-specific training should include information on:

1. Any such chemicals present in the workplace operations.
2. Physical and health effects of the chemicals.
3. Methods and observation techniques used to determine the presence or release of the chemicals in the work area.
4. How to lessen or prevent exposure to these chemicals by proper work practices and use of personal equipment.
5. Emergency procedures to be followed in the event of exposure.
6. How to read labels and review SDS's to obtain hazard information.
7. Location of SDS file and hazardous chemical list.
8. Procedures for safe disposal of waste chemicals.

The Right to Know Coordinator may assist area supervisors with obtaining material for "Specific Training." Area supervisors are responsible for the availability of the specific training.

- Job Specific Training
 - Prior to the introduction of any significant increase of an existing job hazard in a workplace, the immediate supervisor of affected employees must ensure that the additional necessary JOB SPECIFIC training is provided and documented with the Environmental Health and Occupational Safety Office. The supervisor is responsible for the ensuring that the SDS's for the new chemicals are available.

C. Department Specific Training

Training objectives for CHEMICAL/JOB SPECIFIC training is department specific and will be set by the RTK Coordinator in cooperation with each supervisor. These objectives will be reviewed by the RTK Coordinator and respective supervisor every two years. The objectives will also be amended any time a new hazard is introduced into a workplace. Employees working in the areas of Health, Art, Drama, Plant Operations, and Science (Biology, Chemistry, Physics, and Research) may undergo any additional Chemical Specific training.

An employee's CHEMICAL/JOB SPECIFIC training shall be the responsibility of the supervisor in the employees department. This should be within two weeks of the employee's BASIC training and before any exposure to any hazardous chemicals.

The trainer in each department may be trained by the RTK Coordinator and may be given refresher training every two years. Additional training will be given if the responsibilities of being the designated trainer in a department are passed on to someone else, or if a new hazard is introduced in that department.

D. Annual Training/Re-Training for CHEMICAL/JOB SPECIFIC Training

All employees requiring this level of training will be re-trained at least on an annual basis. The training will focus on relevant hazardous chemicals or other job specific hazards in that work area. It is the responsibility of each designated trainer to use CHEMICAL/JOB SPECIFIC Training Modules.

It is the responsibility of an individual's supervisor to ensure that they complete annual training.

E. Documentation of Training

Upon completion of BASIC training the employee will sign the Certificate of Basic Training found at the end of the module. This record of training attendance will be maintained by the RTK Coordinator and will be reported to the Department of Labor.

CHEMICAL/JOB SPECIFIC trainings (ex. Lockout – Tag-out, Electrical Safety, etc.) will be documented on appropriate job specific Training Certification Forms or will be kept by supervisor.

The University's RTK Coordinator may question employees during the normal course of any workday about their training and knowledge of hazards they may face, proper labeling and their general understanding of their requirements.

F. Hazardous Non Routine Tasks

Periodically, employees may be required to perform non-routine tasks (i.e. maintenance or repair). If not aware of the presence of chemical hazards that are either present or may be produced, employees can sometimes encounter greater risks than during their routine duties. Prior to starting work on such projects, each affected employee will be given information by the department supervisor about the hazardous chemicals to which they may be exposed during such activity.

Section 3: Grievance Procedures

A. Faculty Employees

The grievance procedure, developed and adopted by the University faculty, is a guideline for employees who feel they have a grievance that has not been satisfactorily resolved on a less formal basis. The formal grievance procedure shall be reviewed in the MGA Faculty Handbook.

B. Non-Faculty Employees

This grievance procedure is a guideline for the staff members who feel they have a grievance that has not been satisfactorily resolved on less formal basis.

This formal grievance procedure shall be reviewed in the MGA Classified Employee Handbook.

Addendum 1

**Safety Data Sheets (SDS)
Training Information**

To Fulfill the Requirements of:

**Hazardous Chemical Protection
Communication (Right to Know)**

**Developed by the Office of Risk Management and
Police Services / Environmental Health and
Safety Division**

For Employees of:

MIDDLE GEORGIA STATE UNIVERSITY

Revised May 2016

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**MIDDLE GEORGIA STATE UNIVERSITY
SAFETY DATA SHEETS (SDS) TRAINING
INFORMATION**

A. SDS definition:

The Safety Data Sheet (SDS) is a detailed information document designed to provide both workers and emergency personnel with the proper procedures for handling or working with chemical substances. The SDS provides information such as physical and chemical data (melting point, boiling point, flash point, reactivity etc.), toxicity, health effects, emergency and first aid procedures, storage, disposal, protective equipment, routes of exposure, control measures, precautions for safe handling and use, and spill/leak procedures, information on the SDS aides in the selection of safe products. The SDS is of major importance if a spill or other accident occurs.

B. OSHA and OCS Regulations

The Occupational Safety and Health Administration (OSHA) requires chemical manufacturers and importers to obtain or develop safety data sheets (29 CFR 1910.1200 (g)) on each chemical they sell. The regulation lists all the basic categories of information that have to be included on the SDS for each chemical and for chemical mixtures.

The Hazard Communication Standard (HCS) requires employers to maintain copies of safety data sheets for each chemical in the workplace and to make sure that the SDS's are "readily accessible during each work shift to employees when they are in their work area(s)."

The SDS is also a required part of Hazard Communication Training.

C. Regulatory requirements for supply of SDS's

Employers must maintain a complete SDS for each hazardous chemical used in the facility. Employers are entitled to receive the information automatically upon purchase of the material. When new and significant information becomes available concerning a products hazards or ways to protect against hazards, the supplier must add it to the SDS within three months and provide it to the customers with the next shipment of the chemical. Employers must have an SDS for each hazardous chemical used in the workplace. However, if there are multiple suppliers of the same chemical, only one SDS is required.

While SDS's need not be physically attached to a shipment, they must accompany or precede the shipment. When the supplier fails to send an SDS with a shipment labeled as a hazardous chemical, the employer must obtain one from the supplier as soon a

possible. Similarly, if the SDS is incomplete or unclear, the employer should contact the supplier to get clarification or obtain the missing information. The contact should be documented.

D. Alternative Sources for SDS

Whenever possible, SDS's should be obtained from the source from which the chemical is purchased. If an employer is unable to obtain an SDS from a supplier, he/she should submit a written complaint, with complete background information to the nearest OSHA area office. OSHA will then, at the time, call and send a certified letter to the supplier or manufacturer to obtain the needed information.

E. Employer Responsibilities

Employers must ensure that each employee knows how to find information on an SDS and how to properly make use of that information. Employers must also ensure that complete SDS's are made available during each work shift to employees when they are in their work areas, and that information is provided for each hazardous chemical. Where employees must travel between workplaces during a shift, i.e., more than one geographic location, the SDS's may be kept at a central location. In this situation ready access is of major importance in the event of an emergency. Safety Data Sheets shall be made readily available to employees, and upon request, to designated representatives, without cost to the employee or representative.

F. Middle Georgia State University SDS Training

The SDS is the cornerstone of the Hazard Communication Standard Laws. It is the basic tool that Middle Georgia State University and their employees have available to use as a guide to safe practices and emergency response. The Hazard Communication Standard documents certain responsibilities associated with SDS's:

1. It is the responsibility of the manufacturer of a material to determine what hazards are associated with the material, to prepare an SDS for the material, and to provide the SDS to any recipient of the material.
2. It is the supervisor's responsibility to maintain the SDS file in his/her department for review by the employee in their work area during each work shift.
3. It is the supervisor's responsibility to provide employee training in the interpretation of the SDS's.
4. It is the supervisor's responsibility to review all new incoming SDS's for health/safety information and is responsible for advising all affected employees of such conditions.
5. It is the supervisor's responsibility to assure the SDS files are inclusive of the chemical list for the work area.
6. It is the supervisor's responsibility for sending the RTK Coordinator a copy of the SDS for any new chemical introduced in his/her work area.

7. It is the RTK Coordinator's responsibility to maintain and house in the Office of Environmental Health and Safety, a central file of SDSs for chemicals used in various work areas of Middle Georgia State University.
8. It is the responsibility of the employees to read and understand the SDSs of any chemical used on the job.

An understanding of how to interpret the data on the SDS is the best defense against accidents and injuries. The information presented on the SDS is the summarization of facts from many sources. Training, knowledge, and understanding of the technical data on the SDS will provide the skills, wisdom, and good judgement to safely deal with your occupational exposure to hazards. READ the SDSs produced for the chemicals in your work and imagine how you would respond to emergencies and control your day-to-day exposures to materials.

G. OSHA's SDS Mandates

Occupational Safety Health Administration (OSHA) Hazard Communication Standards (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDS) formerly known as Material Safety Data Sheets (MSDS) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1. Chemical 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; trades secrete 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 chemicals 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 (29CFR 1910.1200(g)(2)).

H. Section Descriptions

Section 1: Identification

This section identifies the chemical on the SDS as well as the recommended uses. It also provides the essential contact information of the supplier. The required information consists of:

- Product identifier used on the label and any other common names or synonyms by which the substance is known.
- Name, address, phone number of the manufacturer, importer, or other responsible party, and emergency phone number.
- Recommended use of the chemical (e.g., a brief description of what it actually does, such as flame retardant) and any restrictions on use (including recommendations given by the supplier).

Section 2: Hazard(s) Identification

This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards. The required information consists of:

- The hazard classification of the chemical (e.g., flammable liquid).
- Signal word.
- Hazard statement(s).
- Pictograms (the pictograms or hazard symbols may be presented as graphical reproductions of the symbols in black and white or be a description of the name of the symbol (e.g., skull and crossbones, flame).
- Precautionary statement(s).
- Description of any hazards not otherwise classified.
- For a mixture that contains an ingredient(s) with unknown toxicity, a statement describing how much (percentage) of the mixture consists of ingredient(s) with unknown acute toxicity. Please note that this is a total percentage of the mixture and not tied to the individual ingredient(s)

Section 3: Composition/Information on Ingredients

This section identifies the ingredient(s) contained in the product indicated on the SDS, including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed. The required information consists of:

Substances

- Chemical name.
- Common name and synonyms.
- Chemical Abstracts Service (CAS) number and other unique identifiers.
- Impurities and stabilizing additives, which are themselves classified and which contribute to the classification of the chemical.

Mixtures

- Same information required for substances.
- The chemical name and concentration (i.e., exact percentage) of all ingredients which are classified as health hazards and are:
 - Present above their cut-off/concentration limits or
 - Present a health risk below the cut-off/concentration limits.
- The concentration (exact percentages) of each ingredient must be specified except concentration ranges may be used in the following situations:
 - A trade secret claim is made,
 - There is batch-to-batch variation, or
 - The SDS is used for a group of substantially similar mixtures.

Chemicals where a trade secret is claimed

- A statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.

Section 4: First-Aid Measures

This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical. The required information consists of:

- Necessary first-aid instructions by relevant routes of exposure (inhalation, skin and eye contact, and ingestion).
- Description of the most important symptoms or effects, and any symptoms that are acute or delayed.
- Recommendations for immediate medical care and special treatment needed, when necessary.

Section 5: Fire-Fighting Measures

This section provides recommendations for fighting a fire caused by the chemical. The required information consists of:

- Recommendations of suitable extinguishing equipment, and information about extinguishing equipment that is not appropriate for a particular situation.
- Advice on specific hazards that develop from the chemical during the fire, such as any hazardous combustion products created when the chemical burns.
- Recommendations on special protective equipment or precautions for firefighters.

Section 6: Accidental Release Measures

This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard. The required information may consist of recommendations for:

- Use of personal precautions (such as removal of ignition sources or providing sufficient ventilation) and protective equipment to prevent the contamination of skin, eyes, and clothing.
- Emergency procedures, including instructions for evacuations, consulting experts when needed, and appropriate protective clothing.
- Methods and materials used for containment (e.g., covering the drains and capping procedures).
- Cleanup procedures (e.g., appropriate techniques for neutralization, decontamination, cleaning or vacuuming; adsorbent materials; and/or equipment required for containment/clean up)

Section 7: Handling and Storage

This section provides guidance on the safe handling practices and conditions for safe storage of chemicals. The required information consists of:

- Precautions for safe handling, including recommendations for handling incompatible chemicals, minimizing the release of the chemical into the environment, and providing advice on general hygiene practices (e.g., eating, drinking, and smoking in work areas is prohibited).
- Recommendations on the conditions for safe storage, including any incompatibilities.
- Provide advice on specific storage requirements (e.g., ventilation requirements)

Section 8: Exposure Controls/Personal Protection

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure. The required information consists of:

- OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.
- Appropriate engineering controls (e.g., use local exhaust ventilation, or use only in an enclosed system).
- Recommendations for personal protective measures to prevent illness or injury from exposure to chemicals, such as personal protective equipment (PPE) (e.g., appropriate types of eye, face, skin or respiratory protection needed based on hazards and potential exposure).
- Any special requirements for PPE, protective clothing or respirators (e.g., type of glove material, such as PVC or nitrile rubber gloves; and breakthrough time of the glove material).

Section 9: Physical and Chemical Properties

This section identifies physical and chemical properties associated with the substance or mixture. The minimum required information consists of:

- Appearance (physical state, color, etc.);
- Upper/lower flammability or explosive limits;
- Odor;
- Vapor pressure;
- Odor threshold;
- Vapor density;
- pH;
- Relative density;
- Melting point/freezing point;
- Solubility(ies);
- Initial boiling point and boiling range;
- Flash point;
- Evaporation rate;
- Flammability (solid, gas);
- Partition coefficient: n-octanol/water;
- Auto-ignition temperature;
- Decomposition temperature; and
- Viscosity.

The SDS may not contain every item on the above list because information may not be relevant or is not available. When this occurs, a notation to that effect must be made for that chemical property. Manufacturers may also add other relevant properties, such as the dust deflagration index (Kst) for combustible dust, used to evaluate a dust's explosive potential.

Section 10: Stability and Reactivity

This section describes the reactivity hazards of the chemical and the chemical stability information. This section is broken into three parts: reactivity, chemical stability, and other. The required information consists of:

Reactivity

- Description of the specific test data for the chemical(s). This data can be for a class or family of the chemical if such data adequately represent the anticipated hazard of the chemical(s), where available.

Chemical stability

- Indication of whether the chemical is stable or unstable under normal ambient temperature and conditions while in storage and being handled.
- Description of any stabilizers that may be needed to maintain chemical stability.
- Indication of any safety issues that may arise should the product change in physical appearance.

Other

- Indication of the possibility of hazardous reactions, including a statement whether the chemical will react or polymerize, which could release excess pressure or heat, or create other hazardous conditions. Also, a description of the conditions under which hazardous reactions may occur.
- List of all conditions that should be avoided (e.g., static discharge, shock, vibrations, or environmental conditions that may lead to hazardous conditions).
- List of all classes of incompatible materials (e.g., classes of chemicals or specific substances) with which the chemical could react to produce a hazardous situation.
- List of any known or anticipated hazardous decomposition products that could be produced because of use, storage, or heating. (Hazardous combustion products should also be included in Section 5 (Fire-Fighting Measures) of the SDS.)

Section 11: Toxicological Information

This section identifies toxicological and health effects information or indicates that such data are not available. The required information consists of:

- Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact).
- The SDS should indicate if the information is unknown.
- Description of the delayed, immediate, or chronic effects from short- and long-term exposure.
- The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose)) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.
- Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.
- Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA.

Section 12: Ecological Information (non-mandatory)

This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment. The information may include:

- Data from toxicity tests performed on aquatic and/or terrestrial organisms, where available (e.g., acute or chronic aquatic toxicity data for fish, algae, crustaceans, and other plants; toxicity data on birds, bees, plants).
- Whether there is a potential for the chemical to persist and degrade in the environment either through biodegradation or other processes, such as oxidation or hydrolysis.
- Results of tests of bioaccumulation potential, making reference to the octanol-water partition coefficient (Kow) and the bioconcentration factor (BCF), where available.
- The potential for a substance to move from the soil to the groundwater (indicate results from adsorption studies or leaching studies).
- Other adverse effects (e.g., environmental fate, ozone layer depletion potential, photochemical ozone creation potential, endocrine disrupting potential, and/or global warming potential).

Section 13: Disposal Considerations (non-mandatory)

This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices. To minimize exposure, this section should also refer the reader to Section 8 (Exposure Controls/Personal Protection) of the SDS.

The information may include:

- Description of appropriate disposal containers to use.
- Recommendations of appropriate disposal methods to employ.
- Description of the physical and chemical properties that may affect disposal activities.
- Language discouraging sewage disposal.
- Any special precautions for landfills or incineration activities

Section 14: Transport Information (non-mandatory)

This section provides guidance on classification information for shipping and transporting of hazardous chemical(s) by road, air, rail, or sea. The information may include:

- UN number (i.e., four-figure identification number of the substance).
- UN proper shipping name.
- Transport hazard class(es).
- Packing group number, if applicable, based on the degree of hazard.
- Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code)).
- Guidance on transport in bulk (according to Annex II of MARPOL 73/78 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code))).
- Any special precautions which an employee should be aware of or needs to comply with, in connection with transport or conveyance either within or outside their premises (indicate when information is not available).

Section 15: Regulatory Information (non-mandatory)

This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the SDS. The information may include:

- Any national and/or regional regulatory information of the chemical or mixtures (including any OSHA, Department of Transportation, Environmental Protection Agency, or Consumer Product Safety Commission regulations)

Section 16: Other Information

This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. You may wish to contact the supplier for an explanation of the changes. Other useful information also may be included here.

I. Safety Procedures- Protection Against Hazards

The Safety Data Sheet is a great source of information on the chemicals we use, and most important, on how you use them safely. It's the single place to look for everything you need to know about a chemical's hazards and how to work with each chemical safely. The more familiar you are with the format and the terms used, the more quickly you'll be able to find out what you need to know about the chemicals you use. That not only speeds up the preparation part of the job, but also helps make sure that you don't miss any part of the important warnings and protections you learn from the SDS.

Always start preparing for a job involving a hazardous chemical with these four steps.

1. Read the container label.
2. Read the Safety Data Sheet.
3. Follow the instructions and precautions on the Safety Data Sheet.
4. Alert your supervisor if you cannot find an SDS or don't understand some part of the information it provides.

Rights also come with obligations. You have a right to know and an obligation to use the information on a Safety Data Sheet to protect yourself and others from chemical hazards. Remember, only YOU can make safety happen.

Addendum 2

Labeling and Label Systems
Training Information

**Contents Developed by the Occupational Safety and Health
Administration**

And

Used to meet the requirements of:

**MGAs Hazardous Chemical Protection
Communication (Right to Know)**

Program

For Employees of:

MIDDLE GEORGIA STATE UNIVERSITY

Revised July 2015

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OSHA/BRIEF

Hazard Communication Standard: Labels and Pictograms

A. OSHA Hazard Communication Standard: Labels and Pictograms

OSHA has adopted new hazardous chemical labeling requirements as a part of its recent revision of the Hazard Communication Standard, 29 CFR 1910.1200 (HCS), bringing it into alignment with the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS). These changes will help ensure improved quality and consistency in the classification and labeling of all chemicals, and will also enhance worker comprehension. As a result, workers will have better information available on the safe handling and use of hazardous chemicals, thereby allowing them to avoid injuries and illnesses related to exposures to hazardous chemicals.

The revised HCS changes the existing Hazard Communication Standard (HCS/HazCom 19941) from a performance-based standard to one that has more structured requirements for the labeling of chemicals. The revised standard requires that information about chemical hazards be conveyed on labels using quick visual notations to alert the user, providing immediate recognition of the hazards. Labels must also provide instructions on how to handle the chemical so that chemical users are informed about how to protect themselves.

The label provides information to the workers on the specific hazardous chemical. While labels provide important information for anyone who handles, uses, stores, and transports hazardous chemicals, they are limited by design in the amount of information they can provide. Safety Data Sheets (SDSs), which must accompany hazardous chemicals, are the more complete resource for details regarding hazardous chemicals. The revised standard also requires the use of a 16-section safety data sheet format, which provides detailed information regarding the chemical. There is a separate OSHA Brief on SDSs that provides information on the new SDS requirements.

All hazardous chemicals shipped after June 1, 2015, must be labeled with specified elements including pictograms, signal words and hazard and precautionary statements. However, manufacturers, importers, and distributors may start using the new labeling system in the revised HCS before the June 1, 2015 effective date if they so choose. Until the June 1, 2015 effective date, manufacturers, importers and distributors may maintain compliance with the requirements of HazCom 1994 or the revised standard. Distributors may continue to ship containers labeled by manufacturers or importers (but not by the distributor themselves) in compliance with the HazCom 1994 until December 1, 2015.

This document is designed to inform chemical receivers, chemical purchasers, and trainers about the label requirements. It explains the new labeling elements, identifies what goes on a label, and describes what pictograms are and how to use them.

B. Label Requirements

Labels, as defined in the HCS, are an appropriate group of written, printed or graphic informational elements concerning a hazardous chemical that are affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

The HCS requires chemical manufacturers, importers, or distributors to ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked with the following information: product identifier; signal word; hazard statement(s); precautionary statement(s); and pictogram(s); and name, address and telephone number of the chemical manufacturer, importer, or other responsible party. To develop labels under the revised HCS, manufacturers, importers and distributors must first identify and classify the chemical hazard(s). Appendices A, B, and C are all mandatory. The classification criteria for health hazards are in Appendix A and the criteria for physical hazards are presented in Appendix B of the revised Hazard Communication Standard. After classifying the hazardous chemicals, the manufacturer, importer or distributor then consults Appendix C to determine the appropriate pictograms, signal words, and hazard and precautionary statement(s), for the chemical label. Once this information has been identified and gathered, then a label may be created.

C. Label Elements

The HCS now requires the following elements on labels of hazardous chemicals:

- **Name, Address and Telephone Number** of the chemical manufacturer, importer or other responsible party.
- **Product Identifier** is how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number or batch number. The manufacturer, importer or distributor can decide the appropriate product identifier. The same product identifier must be both on the label and in section 1 of the SDS.
- **Signal Words** are used to indicate the relative level of severity of the hazard and alert the reader to a potential hazard on the label. There are only two words used as signal words, “Danger” and “Warning.” Within a specific hazard class, “Danger” is used for the more severe hazards and “Warning” is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have. If one of the hazards warrants a “Danger” signal word and another warrants the signal word “Warning,” then only “Danger” should appear on the label.
- **Hazard Statements** describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. For example: “Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin.” All of the applicable hazard statements must appear on the label. Hazard statements may be combined where appropriate to reduce redundancies and improve readability. The hazard statements are specific to the hazard classification categories, and chemical users should always see the same statement for the same hazards no matter what the chemical is or who produces it.
- **Precautionary Statements** describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to the hazardous chemical or improper storage or handling. There are four types of precautionary statements: prevention (to minimize exposure); response (in case of accidental spillage or exposure emergency response, and first-aid); storage; and disposal. For example, a chemical presenting a specific target organ toxicity (repeated exposure) hazard would include the following on the label: “Do not breathe dust/fume/gas/mist/ vapors/spray. Get medical advice/attention if you feel unwell. Dispose of contents/ container in accordance with local/regional/ national and international regulations.” A forward slash (/) designates that the classifier can choose one of the precautionary statements. In the example above, the label could state, “Do not breathe vapors or spray.”

Get medical attention if you feel unwell. Dispose of contents in accordance with local/regional/ national/international regulations.” See Examples 1 and 2A of this document as an example.

In most cases, the precautionary statements are independent. However, OSHA does allow flexibility for applying precautionary statements to the label, such as combining statements, using an order of precedence or eliminating an inappropriate statement.

Precautionary statements may be combined on the label to save on space and improve readability. For example, “Keep away from heat, spark and open flames,” “Store in a well-ventilated place,” and “Keep cool” may be combined to read: “Keep away from heat, sparks and open flames and store in a cool, well-ventilated place.” Where a chemical is classified for a number of hazards and the precautionary statements are similar, the most stringent statements must be included on the label. In this case, the chemical manufacturer, importer, or distributor may impose an order of precedence where phrases concerning response require rapid action to ensure the health and safety of the exposed person. In the self-reactive hazard category Types C, D, E or F, three of the four precautionary statements for prevention are:

- “Keep away from heat/sparks/open flame/hot surfaces. - No Smoking.”;
- “Keep/Store away from clothing/.../combustible materials”;
- “Keep only in original container.”

These three precautionary statements could be combined to read: “Keep in original container and away from heat, open flames, combustible materials and hot surfaces. - No Smoking.”

Finally, a manufacturer or importer may eliminate a precautionary statement if it can demonstrate that the statement is inappropriate.

- **Supplementary Information**

The label producer may provide additional instructions or information that it deems helpful. It may also list any hazards not otherwise classified under this portion of the label.

This section must also identify the percentage of ingredient(s) of unknown acute toxicity when it is present in a concentration of $\geq 1\%$ (and the classification is not based on testing the mixture as a whole). If an employer decides to include additional information regarding the chemical that is above and beyond what the standard requires, it may list this information under what is considered “supplementary information.” There is also no required format for how a workplace label must look and no particular format an employer has to use; however, it cannot contradict or detract from the required information.

An example of an item that may be considered supplementary is the personal protective equipment (PPE) pictogram indicating what workers handling the chemical may need to wear to protect themselves. For example, the Hazardous Materials Identification System (HMIS) pictogram of a person wearing goggles may be listed. Other supplementary information may include directions of use, expiration date, or fill date, all of which may provide additional information specific to the process in which the chemical is used.

- **Pictograms** are graphic symbols used to communicate specific information about the hazards of a chemical. On hazardous chemicals being shipped or transported from a manufacturer, importer or distributor, the required pictograms consist of a red square frame set at a point with a black hazard symbol on a white background, sufficiently wide to be clearly visible. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label.

The pictograms OSHA has adopted improve worker safety and health, conform with the GHS, and are used worldwide. While the GHS uses a total of nine pictograms, OSHA will only enforce the use of eight. The environmental pictogram is not mandatory but may be used to provide additional information. Workers may see the ninth symbol on a label because label preparers may choose to add the environment pictogram as supplementary information. Figure 1 shows the symbol for each pictogram, the written name for each pictogram, and the hazards associated with each of the pictograms. Most of the symbols are already used for transportation and many chemical users may be familiar with them. It is important to note that the OSHA pictograms do not replace the diamond-shaped labels that the U.S. Department of Transportation (DOT) requires for the transport of chemicals, including chemical drums, chemical totes, tanks or other containers. Those labels must be on the external part of a shipped container and must meet the DOT requirements set forth in 49 CFR 172, Subpart E. If a label has a DOT transport pictogram Appendix C.2.3.3 states that the corresponding HCS pictogram shall not appear. However, DOT does not view the HCS pictogram as a

conflict and for some international trade both pictograms may need to be present on the label. Therefore, OSHA intends to revise C.2.3.3. In the meantime, the agency will allow both DOT and HCS pictograms for the same hazard on a label. While the DOT diamond label is required for all hazardous chemicals on the outside shipping containers, chemicals in smaller containers inside the larger shipped container do not require the DOT diamond but do require the OSHA pictograms.(See Example 2.)

Labels must be legible, in English, and prominently displayed. Other languages may be displayed in addition to English. Chemical manufacturers, importers, and distributors who become newly aware of any significant information regarding the hazards of a chemical must revise the label within six months.

D. Employer Responsibilities

Employers are responsible for maintaining the labels on the containers, including, but not limited to, tanks, totes, and drums. This means that labels must be maintained on chemicals in a manner which continues to be legible and the pertinent information (such as the hazards and directions for use) does not get defaced (i.e., fade, get washed off) or removed in any way.

The employer is not responsible for updating labels on shipped containers, even if the shipped containers are labeled under HazCom1994. The employer must relabel items if the labels are removed or defaced. However, if the employer is aware of newly-identified hazards that are not disclosed on the label, the employer must ensure that the workers are aware of the hazards as discussed below under workplace labels.

Workplace Labels

OSHA has not changed the general requirements for workplace labeling. Employers have the option to create their own workplace labels. They can either provide all of the required information that is on the label from the chemical manufacturer or, the product identifier and words, pictures, symbols or a combination thereof, which in combination with other information immediately available to employees, provide specific information regarding the hazards of the chemicals.

If an employer has an in-plant or workplace system of labeling that meets the requirements of HazCom 1994, the employer may continue to use this system in the workplace as long as this system, in conjunction with other information immediately available to the employees, provides the employees with the information on all of the health and physical hazards of the hazardous chemical.

This workplace labeling system may include signs, placards, process sheets, batch tickets, operating procedures, or other such written materials to identify hazardous chemicals. Any of these labeling methods or a combination thereof may be used instead of a label from the manufacturer, importer or distributor as long as the employees have immediate access to all of the information about the hazards of the chemical. Workplace labels must be in English. Other languages may be added to the label if applicable.

If the employer chooses to use the pictograms that appear below on the workplace (or in-plant) labels, these pictograms may have a black border, rather than a red border. Employers may use additional instructional symbols that are not included in OSHA's HCS pictograms on the workplace labels. An example of an instructional pictogram is a person with goggles, denoting that goggles must be worn while handling the given chemical. Including both types of pictograms on workplace labels is acceptable. The same is true if the employer wants to list environmental pictograms or PPE pictograms from the HMIS to identify protective measures for those handling the chemical.

Employers may continue to use rating systems such as National Fire Protection Association (NFPA) diamonds or HMIS requirements for workplace labels as long as they are consistent with the requirements of the Hazard Communication Standard and the employees have immediate access to the specific hazard. If an employer transfers hazardous chemicals from a labeled container to a portable container that is only intended for immediate use by the employee who performs the transfer, no labels are required for the portable container.

Sample Labels

The following examples demonstrate how a manufacturer or importer may display the appropriate information on the label. As mentioned above, once the manufacturer determines the classification of the chemical (class and category of each hazard) using Appendices A and B, it would determine the required pictograms, signal words, hazard statements, and precautionary statements using Appendix C. The final step is to put the information on the label.

The examples below show what a sample label might look like under the revised HCS requirements. The examples break the labeling out into "steps" to show the order of information gathering and how label creation occurs. Step 1 is performing classification; step 2 is gathering full label information; and step 3 is creating the label.

E. Example labels

These examples are for informational purposes only and are not meant to represent the only labels manufacturers, importers and distributors may create for these hazards.

Example 1: This example demonstrates a simple label.

The Substance:

HS85

Batch Number: 85L6543

Step 1: Perform Classification

Class: Acute Oral Toxicity; Category 4

Step 2: Gather Labeling Information

Signal Word:

WARNING

Hazard Statements:

Harmful if Swallowed

Precautionary Statements:

Prevention:

- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.

Response:

- If swallowed: Call a doctor if you feel unwell.²
- Rinse mouth

Storage:

None specified

Disposal:

- Dispose of contents/container in accordance with local/regional/national/international regulations.³

Step 3: Create the Label

Putting together the above information on HS85, a label might list the following information:

Example 1: HS85 Label

| |
|---|
| <p style="text-align: center;">HS85 Batch number: 85L6543</p> <p style="text-align: center;"></p> <p style="text-align: center;">Warning Harmful if swallowed</p> <p>Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Dispose of contents/container in accordance with local, state and federal regulations.</p> <p>First aid: If swallowed: Call a doctor if you feel unwell. Rinse mouth.</p> <p>GHS Example Company, 123 Global Circle, Anyville, NY 130XX Telephone (888) 888-8888</p> |
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Example 2: This example demonstrates a more complex label.

Example 2 is for a substance that is a severe physical and health hazard. For shipping packages of chemicals that will be transported in the United States (i.e., drums, totes, tanks, etc.), the U.S. DOT requires a DOT label(s) on the outside container(s) for hazardous chemicals. Two versions of this label are presented below to demonstrate the difference between an OSHA label with pictograms from the HCS and a DOT label required for transport of a shipping container.

The Substance:

OXI252 (disodiumflammy) CAS number: 111-11-11xx

Step 1: Perform Classification

Class: Oxidizing Solid, Category 1

Class: Skin Corrosive, Category 1A

Step 2: Gather Labeling Information

Pictograms:



Signal Word:

DANGER

Hazard Statements:

- May cause fire or explosion; strong oxidizer
- Causes severe skin burns and eye damage

Precautionary Statements:

Prevention:

- Keep away from heat.
- Keep away from clothing and other combustible materials.
- Take any precaution to avoid mixing with combustibles.
- Wear protective neoprene gloves, safety goggles and face shield with chin guard.
- Wear fire/flame resistant clothing.
- Do not breathe dust or mists.
- Wash arms, hands and face thoroughly after handling.

Response:

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.

- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- Immediately call poison center.

Specific Treatment:

Treat with doctor-prescribed burn cream.

In case of fire:

Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/ international regulations.³

Step 3: Create the Label

Putting together the above information on OXI252, a label might list the following information:

Example 2A: OXI252 Label inner package label with OSHA pictograms

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| <p>OXI252 (disodiumflammy) CAS #: 111-11-11xx</p>  <p>Danger May cause fire or explosion; strong oxidizer Causes severe skin burns and eye damage</p> <p>Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/flame resistant clothing. Do not breathe dust or mists. Wash arms, hands and face thoroughly after handling. Store locked up. Dispose of contents and container in accordance with local, state and federal regulations.</p> <p>First aid: IF ON SKIN (or hair) or clothing⁵: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call poison center. Specific Treatment: Treat with doctor-prescribed burn cream.</p> <p>Fire: In case of fire: Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>Great Chemical Company, 55 Main Street, Anywhere, CT 064XX Telephone (888) 777-8888</p> |
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Example 2B: OXI252 Label meeting DOT requirements for shipping⁷

OXI252
(disodiumflammy)
CAS #: 111-11-11xx



Danger
May cause fire or explosion; strong oxidizer
Causes severe skin burns and eye damage

Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/flame resistant clothing. Do not breathe dust or mists. Wash arms, hands and face thoroughly after handling. Store locked up. Dispose of contents and container in accordance with local, state and federal regulations.

First aid:
IF ON SKIN (or hair) or clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call poison center.
Specific Treatment: Treat with doctor-prescribed burn cream.

Fire:
In case of fire: Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Great Chemical Company, 55 Main Street, Anywhere, CT 064XX Telephone (888) 777-8888

There are occasions where label preparers may combine statements on the label. In this case the similar statements were combined and the most stringent were listed. For example, the first-aid precautionary statements were combined for exposure to skin, hair and clothing.

DOT Labels must comply with the size requirements presented in 49 CFR 172

For more detailed information about labels and Safety Data Sheets (SDSs) under the revised Hazard Communication Standard, please refer to refer to 29 CFR 1910.1200 - paragraphs (f) and (g), and Appendix C.

The revised Hazard Communication Standard and additional guidance materials are available on OSHA's Hazard Communication page, located at: www.osha.gov/dsg/hazcom/index.html.

This is one in a series of informational briefs highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

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 ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ 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-Reactives ▪ 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) |

G. Disclaimer:

This OSHA Brief provides a general overview of the label requirements in the Hazard Communication Standard (see 29 CFR 1910.1200(f) and Appendix C of 29 CFR 1910.1200). It does not alter or determine compliance responsibilities in the standard or the Occupational Safety and Health Act of 1970. Since interpretations and enforcement policy may change over time, the reader should consult current OSHA interpretations and decisions by the Occupational Safety and Health Review Commission and the courts for additional guidance on OSHA compliance requirements.