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Purpose

The purpose of CFR, Title 29, Part 1910.1200, Hazard Communication Standard (HCS) is to ensure that the hazards of all produced or incorporated chemicals are evaluated and the information concerning these hazards are transmitted to both employers and employees. The standard also uses the Globally Harmonized System (GHS). This is an international approach to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets. The GHS was negotiated in a multi-year process by hazard communication experts from many different countries, international organizations, and stakeholder groups. It is based on major existing systems around the world, including OSHA's Hazard Communication Standard and the chemical classification and labeling systems of other US agencies.

The standard mandates the evaluation of hazardous chemicals present in a workplace and requires training of employees regarding the hazardous chemicals and related prevention and protective measures for routine and non-routine tasks. As the GHS does not include any requirements regarding Hazards Communication Programs, OSHA is maintaining the provisions of the HCS 1994.

Introduction

It is the Town of Collierville's policy that the first consideration of work shall be the protection of the safety and health of all employees. We have developed this Hazard Communication Plan to ensure that all employees receive adequate information about the possible hazards that may result from the various materials used in our operations. This Hazard Communication Plan will be monitored by the Safety Program Administrator (SPA) who will be responsible for ensuring that all facets of the program are carried out, and that the program is effective.

The Hazard Communication Plan

- 1. The Hazard Communication Plan (HCP) consists of four major components:
 - Identification and inventory of all hazardous chemicals and listing on a Hazardous Chemical List (HCL).
 - Acquisition of Safety Data Sheets (SDS) for each hazardous chemical listed on the HCL.
 - Labelling of all hazardous chemicals with chemical name, hazards and warnings and the manufacturer's or importer's name and address, with reference to the appropriate Safety Data Sheet.
 - Training of all employees about the hazardous chemicals in the workplace and of the Hazard Communication Plan.
- 2. The Safety Program Administrator is the coordinator for the Hazard Communication Plan.

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Copies of the Hazard Communication Standard and the Hazard Communication Plan will be maintained and available upon request.

Hazardous Chemicals List

Each department will have responsibility for identifying and inventorying all hazardous chemicals used by the department.

A current master list will be maintained at all times. New chemicals will be added as they are received and chemicals no longer inventoried will be removed from the list as they are discarded. A formal inventory and updating of the list will be done annually.

Each hazardous chemical must be cross-referenced to an appropriate Safety Data Sheet.

The master HCL will be maintained in the General Services Department, Risk Management Division office. Partial lists will be maintained in the various departments where hazardous chemicals are used.

Safety Data Sheets (SDS)

The Hazard Communication Standard requires that SDS's be available to all employees for each hazardous chemical identified and used.

- Each department will be responsible for acquiring and maintaining updated versions of all SDS's in the department list as well as the Master list maintained in the Risk Management Division.
- The SDS will be written in English and will consist of all information listed below:

The format of the 16-section SDS should include the following 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

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- Section 13. Disposal considerations
- Section 14. Transport information
- Section 15. Regulatory information
- Section 16. Other information, including date of preparation or last revision

The SDS must also contain Sections 12-15, to be consistent with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Although the headings for Sections 12-15 are mandatory, OSHA will not enforce the content of these four sections because these sections are within other agencies' jurisdictions.

- All new procurements of hazardous chemicals should be evaluated and, whenever possible, the least hazardous substance will be purchased.
- Training of all employees regarding any new or updated SDS will be documented.
- Purchase orders for hazardous chemicals should include a request for a current SDS.
- Hazardous chemicals should not be incorporated into any work process until an SDS has been received and reviewed by employees exposed to the chemical.

Accessibility of Safety Data Sheets

- A current SDS library will be maintained in each department and the Risk Management office for all hazardous chemicals identified and listed on the HCL.
- The SDSs will be readily available to all employees during each work shift.

If a new SDS contains changes or new information, the old SDS will be replaced with the new one in both the master file and the worksite file. Affected personnel will review updated or modified SDSs.

Labels and Other Forms of Warning

- 1. Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within **six** (6) **months** of becoming aware of the new information, and shall ensure that labels on containers of hazardous chemicals shipped after that time contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importer, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.
- 2. Containers of hazardous chemicals will be properly labeled with at least the following information:
 - a. Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.
 - b. Identify the hazardous chemical;

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- c. Appropriate hazards and warnings (including target organ effect); and
- d. Name and address of the manufacturer.
- e. **Pictogram:** a symbol plus other graphic elements, such as a border, background pattern, or color that is intended to convey specific information about the hazards of a chemical. Each pictogram consists of a different symbol on a white background within a **red square frame** set on a point (i.e. a red diamond). There are nine pictograms under the GHS. However, only eight pictograms are required under the HCS.

HCS Pictograms and Hazards

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

f. **Signal words:** a single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger" and

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- "warning." "Danger" is used for the more severe hazards, while "warning" is used for less severe hazards.
- g. **Hazard Statement:** a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
- h. **Precautionary Statement:** a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling of a hazardous chemical.
- 3. The appropriate SDS will be reviewed by a member of the department's management team to verify the warning label.
- 4. Unlabelled containers should not be used.
- 5. Secondary containers used by several employees will be labeled.
 - a. A semi-permanent label with the following information will be used:
 - i. Identity of the hazardous chemical;
 - ii. Appropriate hazards and warnings (including target organ effect); and
 - iii. Name and address of the chemical manufacturer.
 - b. Use the secondary container only for the chemical identified on the label.
 - c. The secondary container will be emptied and washed as needed. The label will not be removed, but will remain in place for future uses.
- 6. Alternate methods of labeling (signs, placards, batch tickets, process sheets and like written materials) may be used on individual stationary containers in lieu of affixed labels, provided the alternative method identifies the containers to which it applies and conveys the required information and is readily accessible to employees in their work area throughout the shift.

All primary and secondary containers will be regularly checked and verified that labels have not been defaced or removed and the information contained on them is current.

Training and Communication

1. OSHA is requiring that employees are trained on the new label elements (i.e., pictograms, hazard statements, precautionary statements, and signal words) and SDS format by December 1, 2013, while full compliance with the final rule will begin in 2015. OSHA believes that American workplaces will soon begin to receive labels and SDS's that are consistent with the GHS, since many American and foreign chemical manufacturers have already begun to produce HazCom 2012/GHS-compliant labels and SDS's. It is important to ensure that when employees begin to see the new labels and SDS's in their workplaces, they will be familiar with them, understand how to use them, and access the information effectively.

For more information, http://www.osha.gov/dsg/hazcom/effectivedates.html.

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- 2. Prior to an assignment, each employee who works with or is potentially exposed to hazardous chemicals will receive training on the Hazard Communication Standard and the specific use of applicable hazardous chemicals.
- 3. Prior to the introduction of a new hazardous material or updated hazard, each employee will be trained concerning specific use or handling procedures.
- 4. Training will emphasize the following elements:
 - a. A summary of the Hazard Communication Standard and Hazard Communication Plan;
 - b. Hazardous chemical properties, including visual appearance and odor and methods that can be used to detect the presence or release of hazardous chemicals.
 - c. Physical and health hazards of the chemicals in the work area (including signs and symptoms of exposure) and any medical conditions known to be aggravated by exposure to the chemical.
 - d. Procedures to protect against hazards, including:
 - i. Personal protective equipment required.
 - ii. Proper use and maintenance.
 - iii. Work practices or methods to assure proper use and handling of chemicals.
 - iv. Emergency response procedures.
 - e. Work procedures to follow to assure protection when cleaning hazardous chemicals and leaks.
 - f. Location of SDS, interpretation of their contents and labeling information, as well as instructions for employees in how to obtain and use appropriate hazard information.
 - g. Explanation of the labeling system and instructions for preparing secondary container labels.
- 5. Employee training will be documented and monitored for use in identifying training needs.
 - a. Retraining is required when a chemical hazard changes or when a new hazard is introduced into the workplace. It will also be Town policy to include hazard communications into regularly scheduled staff meeting agendas.
 - b. The training program will be assessed by obtaining input from employees regarding training they have received and their suggestions for improvement.
- 6. All employees assigned to spray chemicals will:
 - a. Receive a training program in respirator use, protective gear required, and chemical spraying.
 - b. Wear personal protective equipment necessary in their routine spraying.

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Non-Routine Tasks

Maintenance or other supervisor contemplating undertaking a non-routine task, e.g., equipment repair and cleaning, will ensure that employees are informed of chemical hazards associated with the performance of these tasks and that appropriate protective measures are taken prior to the beginning of the task.

Definitions

Article: means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

Assistant Secretary: means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any substance, or mixture of substances.

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

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name <u>that</u> will clearly identify the chemical for the purpose of conducting a hazard <u>classification</u>.

Classification means to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

Commercial account means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

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

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Container means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

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

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

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

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

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazard category means the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard class means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard not otherwise classified (HNOC) means an adverse physical or health effect 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 this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the

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effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Hazard statement means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous chemical means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, Pyrophoric gas, or hazard not otherwise classified.

Health hazard means 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. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200 -- Health Hazard Criteria.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

Label means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label elements means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Mixture means a combination or a solution composed of two or more substances in which they do not react.

Physical hazard means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or 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. See Appendix B to §1910.1200 -- Physical Hazard Criteria.

Pictogram means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

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Precautionary statement means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Product identifier means the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

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

Pyrophoric gas means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

Signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

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.

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Trade secret means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. <u>Appendix E to §1910.1200–Definition of Trade Secret</u>, sets out the criteria to be used in evaluating trade secrets.

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

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

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