1.0 Purpose

The purpose of this procedure is to assess chemical containment, disposal, and spill prevention. Once identified, this information can be communicated to employees working with chemicals to ensure a safe, healthy and environmentally conscience working environment

2.0 Activity/Department

Property Managers and COR's on the teams that oversee facility O&M contracts and other contractors that utilize chemicals on a daily basis, the DFC quality assurance inspector, and maintenance work supervisors.

3.0 Forms Used

- Team liquid maintenance chemical spreadsheet
- GSA Form 3423 (5-80) Contract Inspection Form.
- Chemical inventory spreadsheet for non liquid chemicals
- Manufacturers Material Safety Data Sheets
- Training Documentation in the Hazardous Material Communication (HAZCOM) program
- Waste Manifest

4.0 References

- 29CFR1910.1200 - Occupational Safety and Health Standards, Hazard Communication
- GSA Environmental Management Tech Guides
- GSA OSH Compendium
- NFPA 30 - Flammable and Combustible Liquids Code, 2003 Edition

5.0 Acronyms, Abbreviations, and Definitions

CFR	Code of Federal Regulations
COR	Contracting Officer's Representative
DOT	Department of Transportation
EPA	Environmental Protection Agency
GSA	General Services Administration
HAZCOM	Hazard Communication
MSDS	Material Safety Data Sheets
NFPA	National Fire Protection Association
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration

- Article – 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 29CFR1910.1200), and does not pose a physical hazard or health risk to employees.
- Chemical – any element, chemical compound or mixture of elements and/or compounds.
- Chemical name – the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.
- Combustible liquid – any liquid having a flashpoint at or above 100 ºF (37.8 ºC) but below 200 ºF (93.3 ºC), or higher, the total volume of which make up 00 percent or more the total volume of the mixture.
- Common name – any designation or identification such as code name, code number, trade name, brand name, or generic name used to identify a chemical other than by its chemical name.
- Compressed Gas –
    - (i) a gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 ºF (21.1 ºC) or
    - (ii) a gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 ºF (54.4 ºC) regardless of the pressure at 70 ºF (21.1 ºC); or
    - (iii) a liquid having a vapor pressure exceeding 40 psi at 100 ºF (37.8 ºC) as determined by ASTM D-323-72,
- Container – any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this procedure pipes or piping systems, systems for heating (i.e. boilers) and cooling (i.e. chillers) a building, engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers.
- Designated representative – any individual or organization to whom an employee gives written authorization to exercise such an employee's rights in this procedure. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization
- Explosive – a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature
- Exposure or exposed – 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, absorption).
- Flammable – a chemical that falls into one of the following categories:
    - (i) Aerosol, flammable means an aerosol that, when tested by the method described in 16CFR1500.45, yields a flame projection exceeding 18 inches at full

valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening
  - (ii) Gas, flammable means (A) a gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or (B) a gas that at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of lower limit
  - (iii) Liquid, flammable means any liquid having a flashpoint below 100 ºF (37.8 ºC) or higher, the total of which makeup 99 percent or more of the total volume of the mixture
  - (iv) Solid, flammable means a solid other than a blasting agent or explosive that is able to cause fire through friction absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.
- Foreseeable emergency - 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.
- Hazardous chemical – any chemical which is a physical hazard or a health hazard
- Hazard warning – any words, pictures, symbols, or combination therof appearing on a label or other appropriate form of warning which contvey the specific physical and health hazard(s), including target organ effects of the chemical(s) in the container(s).
- Health hazard – a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. Health Hazard includes chemicals which are carcinogens (cancer causing), toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins (liver), nephrotoxins (kidney), agents which act on the hematopoietic (blood) system, and agents which damage the lungs, skin, eyes, or mucous membranes.
- Identity – any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical.
- Immediate use – 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 to which it is transferred.
- Label - any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.
- Material Safety Data Sheets – written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of 29CFR1910.1200.
- Mixture – any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.
- Oxidizer – a chemical other than a blasting agent or explosive that initiates or promotes a combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

- Personal Protective Equipment (PPE) – Safety equipment articles that are worn to protect the employee from accidental exposures from hazardous materials.
- Physical Hazard – a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.
- Pyrophoric – a chemical that will ignite spontaneously in air at a temperature of 130 ºF (54.4 ºC) or below
- Responsible party – someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.
- Unstable (reactive) – a chemical which is in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.
- Use – to package, handle, react, emit, extract, generate, as a byproduct, or transfer.
- Water-reactive – a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.
- Work area – a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.
- Workplace – an establishment, job site, or project at one geographical location containing one or more work areas.

6.0 Exclusions

Chemicals that are used by contractors on short term projects related to construction activities. Exception: the normal, routine use of a hazardous material does not warrant submitting an updated inventory to the DFC team property manager. For example: stock depletion of a floor cleaner used on a daily basis does not require the inventory to be updated and sent to the property manager. If the floor cleaner is removed and is no longer used by the activity, or replaced by a different floor cleaner, a revised inventory should be forwarded to the property manager's office.

7.0 Procedure

7.1 Written Hazard Communication Program - all contract employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria for labels and other forms of warning, material safety data sheets, and employee information and training will be met. The following must be contained in the written program:

- Name of GSA activity
- Address of GSA activity
- Inventory of hazardous materials
- Normal storage location of hazardous materials
- Copy of the MSDS for each hazardous material

- Training criteria for contract employees who use, store, or otherwise handle hazardous materials
- A statement requiring each container of hazardous material shall be labeled or marked with the following information
  - Identity of the hazardous material
  - Appropriate hazard warning
  - Name and address of the manufacturer, or other responsible party
- Signature of responsible Contract supervisor
- Signature of responsible GSA official (e.g. property manager, COR, buildings management tech, etc.)

7.2 Individuals in charge of activities shall be responsible

7.2.1 To fully support the hazard communication program

7.2.2 For the implementation of the written hazard communication program

7.2.3 To maintain an inventory of all hazardous materials used, stored or otherwise handled during normal work activities

7.2.4 To obtain a copy of the applicable MSDS's for each hazardous material used, stored or otherwise handled during normal work activities

7.2.5 To maintain a binder or other acceptable holder for the written plan, inventory and MSDS's

7.2.6 To furnish the appropriate DFC team property manager a copy of the hazardous materials inventory, at least annually and more often if current supplies are exhausted or deleted from the inventory, or new materials are added.

7.3 The DFC team property manager is responsible:

7.3.1 To ensure copies of the written hazard communication program contains minimum requirements which meet the intent of the program at each activity where hazardous materials are present

7.3.2 To ensure contract employees have required training to handle hazardous materials

7.3.3 To maintain a file of hazardous materials inventories. The MSDS is not required to be filed in the property managers office.

7.3.4 To ensure that no associate is exposed to any hazardous material until after completing the required training or verification of contract employees required training

7.3.5 To ensure the criteria established in the written hazard communication program are enforced throughout the life cycle of the hazardous material

7.4 All storage containers that contain any chemical product must be properly labeled. Exception: any container that will be used for that day or shift only does not need to be labeled.

7.5 Employees who are required to handle chemicals must have the appropriate protective gear. Ensure that Goggles and or face shields, gloves, spill aprons, etc. are provided and that the employee is trained in the proper use and care of the protective equipment.

7.6 Teams will ensure that all liquid chemicals in storage containers used for; cleaning, maintenance, pest control, and snow removal will have secondary containment.

7.7 Teams will ensure that smaller containers are stored in appropriate storage cabinets. The chemicals will be stored in such a way that if there is a spill, the different chemicals do not mix and cause either fire, explosion, or an eruption of toxic gas. The types of cabinets used will meet the requirements of the National Fire Code.

7.8 Employees will use the appropriate PPE when transferring a chemical from a large container into a smaller container.

7.9 Any spills will be cleaned up using an appropriate method and disposed of in approved containers. All spills shall be cleaned up immediately and reported to their supervisor. [***the spill containment procedures are typically developed on the type of chemical product that is spilled. This procedure must be outlined in the hazard communication program submitted to the COR from the contractor who will be utilizing chemicals in federal facilities.]***

7.10 Any chemicals that no longer have a use in the facility or in the work process and can not be transferred, sold or recycled are considered hazardous waste. Waste chemicals are to be transferred to Building 11 for storage until disposal. Contact the DFC Programs Group for proper transfer and disposal instructions.

7.11 The DFC Quality Assurance Inspector and the appropriate COR's will report any violations to the Team Property Manager who will ensure that the situation is corrected.

8.0 Records

- Team Liquid Chemical Inventory Spreadsheet
- Non Liquid Chemical Inventory Spreadsheet
- MSDS's
- Shipping manifests
- Training Records
- Disposal chain of custody forms
- Waste Manifests