Policy and Procedure #3.203

Control and Use of Hazardous Materials

Authority: Wyoming Statute(s): 25-1-104; 25-1-105 ACA Standard(s): 4-4215; 1-ABC-3B-03; 2-CO-3B-01-M	**Effective Date:** October 15, 2016 **Revision/Review History:** 09/15/15, 06/15/14, 10/31/13, 10/01/12, 08/01/11 **Summary of Revision/Review:** Updates existing policy pursuant to annual review.
Cross Reference of Policy:	**Supersedes Existing Policy :**
Approved: R.O. Lampert — 10-12-16 Robert O. Lampert, Director — Date	

REFERENCE

1. **ATTACHMENTS – None Noted**

2. **OTHER**

   A. International Fire Code, Table 2703.1.1(1).

I. PURPOSE

A. Control and Use of Hazardous Materials. The purpose of this policy and procedure is to provide Wyoming Department of Corrections (WDOC) staff with guidelines required for the control and use of hazardous materials, such as flammables, toxics, and caustics.

II. POLICY

A. General Policy. It is the policy of the WDOC to control the acquisition, issuance, storage, and use of all flammable, toxic, and caustic materials. (ACA 4-4215; 1-ABC-3B-03; 2-CO-3B-01-M) This policy shall govern the control and use of all hazardous materials.

III. DEFINITIONS

A. Biohazards: Infectious agents or hazardous biological materials that present a risk or potential risk to the health of humans, animals or the environment. The risk can be direct through infection or indirect through damage to the environment. Biohazardous materials include certain types of recombinant DNA; organisms and viruses infectious to humans, animals or plants (*e.g.*, parasites, viruses, bacteria, fungi, prions, rickettsia); and biologically active agents (*i.e.*, toxins, allergens, venoms) that may cause disease in other living organisms or cause significant impact to the environment or community.

B. Caustic Material: A substance capable of destroying or eating away by chemical reaction.

C. Combustible Fiber: Readily ignitable and free burning materials in a fibrous or shredded form, such as cocoa fiber, cotton, excelsior, hay, hemp, henequen, istle, jute, kapok, oakum, ragd, sisal, spanish moss, straw, tow, wastepaper, certain synthetic fibers and cloth in the form of scraps and clippings, or other like materials. This definition does not include densely packed baled cotton. The two classes of combustible fibers are bailed (suitably wrapped and bound or otherwise packaged) and loose (not in suitable bales or packages).

D. Combustible Liquid: A liquid that will ignite if it reaches its flash point and is provided with an ignition source. Combustible liquids have a flash point at or above 100° Fahrenheit and are classified as a Class II or Class III liquid.

E. Flammable Liquid: A liquid that will ignite if it reaches its flash point and is provided with an ignition source. Flammable liquids have a flash point below

100° Fahrenheit and can typically ignite at room temperature. Flammable liquids are classified as a Class I liquid.

F. **Flash Point:** The minimum temperature at which a liquid will give off sufficient vapors to form an ignitable mixture with the air near the surface of the liquid (or in the vessel used). Liquids with low flash points pose the greatest danger.

G. **Hazardous Material:** Any substance or mixture of substances having properties capable of producing adverse effects on the health and safety of a human being. It can be flammable, combustible, toxic, caustic, explosive, or radioactive.

H. **Hazard Communications Program:** An operational procedure specific to each WDOC facility that includes a listing of hazardous chemicals, flammables, toxics, and caustics known to be used in the facility's physical plant work areas. In addition, the Hazard Communications Program identifies facility staff responsible for maintaining Safety Data Sheets, employee training, and container labeling.

I. **Label:** (*For this policy only.*) A written, printed or graphic material, displayed on or affixed to containers of hazardous chemicals.

J. **Safety Data Sheet (SDS):** A document required by government regulation for all hazardous chemical substances produced and/or sold in the United States. SDS sheets contain detailed information on each hazardous chemical. The SDS sheet is intended to provide workers with and emergency personnel with procedures for handling or working with the substance in a safe manner, and includes information such as physical data (melting, boiling and flash points, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill handling procedures. The exact format of an SDS can vary from source to source.

K. **Methyl Alcohol:** (Also known as wood alcohol or methanol.) A flammable, poisonous liquid commonly used in industrial applications (*i.e.*, shellac thinner, paint solvent, duplicating fluid, solvents for leather cements and dyes, flushing fluid for hydraulic brake systems). Drinking methyl alcohol can cause death or permanent blindness.

L. **Occupational Safety and Health Administration (OSHA):** A government agency that sets the standards for working conditions in the United States and ensures that employees work in safe and health environments.

M. **Safety Disposal Can:** A container used for storing and disposing up to five (5) gallons of industrial waste, including flammable and combustible liquids.

N. **Toxic Material:** A substance that, through chemical reaction or mixture, can produce possible injury or harm to the body by entry through the skin, digestive tract, or respiratory tract. The toxicity is dependent on the quantity absorbed and the rate, method, and site of absorption.

IV. PROCEDURE

A. General Guidelines

1. Adequate controls for all flammable, toxic, and caustic materials shall be provided through an organized system of regulations governing the acquisition, storage, and use of such materials. Safety Managers are responsible for the management of this program, and each Facility Safety Officer is responsible for the control and accountability of all hazardous substances used in the respective department or section of the facility.

2. Each facility shall develop a Hazard Communication Program operational procedure, which contains site-specific information related to the storage, issuance, and control of hazardous materials. The Hazard Communication Program shall ensure the appropriate amount of control is exercised for each substance based on amount used, potential for misuse, history of misuse, and chemical content of substance.

i. The Hazard Communication Program shall be incorporated in the general staff training curriculum and a specific training program for all inmates using a particular substance shall be instituted in either work or training activities.

3. Questions concerning the use and control of any substance shall be resolved by examining the manufacturer's Safety Data Sheet (SDS). At a minimum, a SDS is required for any substance maintained which has a warning label.

i. Each SDS sheet shall be in English and shall contain the following information:

a. The identify used on the label;

b. Physical and chemical characteristics (*e.g.*, vapor pressure, flash point, *etc*.);

c. Physical and health hazards;

d. Primary routes or entry;

e. Exposure limits;

f. Precautions for safe handling and use;

g. Control measures;

h. Emergency and first aid procedures; and

i. The Chemical manufacturer's name, address, and telephone number.

4. Substances that do not contain any of the properties discussed in this policy but are labeled "Keep out of reach of children" or "May be harmful if swallowed" are not necessarily subject to the controls specified in this policy. Their use and control, however, including the quantities available, shall be evaluated and addressed by facility-specific rules or guidelines.

i. Substances used as cleaning products (other than those outlined in Section IV.F. of this policy), such as bleach, oven cleaner, and cleanser, shall require the same control measures as toxic/caustics and flammable substances.

5. It is possible that a substance may possess more than one hazardous property; therefore, the safety requirements for all applicable properties shall be considered.

6. The WDOC Safety Manager and/or Facility Safety Officer shall review and approve the procurement of any hazardous substance covered by this policy. Whenever possible and practical, hazardous substances shall be replaced with products less likely to be abused or misused in a prison setting. Special care shall be exercised by all employees involved in the acquisition or use of hazardous products.

7. Hazardous materials shall be stored in approved storage areas away from offender housing units and employee offices. Hazardous material storage areas shall be inaccessible to inmates.

8. Inmates are not allowed unsupervised access to concentrated packages of PortionPac (or CorrectPac) chemicals. When mixing PortionPac (or

CorrectPac) chemicals, by inmates, they must be under direct supervision of a WDOC Staff member or an approved WDOC contract employee. This process may be deviated from at the facility with approval of the Warden/CEO on a case by case basis.

9. All flammable, caustic, and toxic substances shall be issued (*i.e.*, drawn from supply points to canisters or dispensed) only under the supervision of authorized staff and in approved containers.

10. Hazardous material containers shall be labeled properly as to the content and inspected weekly for weak seals, leaks, fire hazards, losses, and spoilage. A log or inspection file shall be used to record distribution and inspection of these materials. Any discrepancy noted shall be reported to the safety manager or qualified designee.

i. Managers and supervisors shall verify that all containers received for and used at their respective areas are clearly labeled as to the contents within and that appropriate hazard warnings are clearly visible on the container. No containers shall be released for use until such information is verified.

ii. Existing labels on incoming containers of hazardous chemicals shall not be removed or defaced, unless the container is marked with the appropriate information as to the contents of the container. Shipping labels on containers shall not be removed until all residue has been removed from the container.

iii. All employees and/or inmates who transfer any chemicals, flammable liquids, or combustible liquids into other than original containers shall ensure that the containers are approved safety cans, listed and labeled by a nationally recognized testing laboratory for the chemicals, flammable liquids, or combustible liquids that are being transferred to the approved safety can. These safety cans shall bear legible labels identifying the contents.

iv. No staff or inmate shall transfer any PortionPac (or CorrectPac) cleaning or janitorial chemicals to any bottle other than the container approved by PortionPac (or CorrectPac) for such use.

v. All excess liquids shall remain in their original container in the storage room or cabinet. All containers shall be tightly closed when not in use.

11. All such substances shall be issued only in the minimum amount necessary to accomplish the task. Any unused amounts shall be inventoried and immediately returned to their proper secured storage.

12. Combustible fiber (loose or bailed) shall not exceed the maximum allowable quantity per control area as defined in the *International Fire Code, Table 2703.1.1(1).*

13. All persons using such substances shall be closely supervised by qualified staff who understand the safe use of the substance and first aid measures. The issuance of flammable, toxic, or caustic materials (including chemicals and cleaning agents) to inmates shall be done under the direct supervision of staff.

14. All such substances shall be accounted for before, during, and after their use.

15. Storage areas for flammable or caustic materials shall be inspected on a weekly basis.

\

16. At least annually, the control of flammable and caustic chemicals shall be reviewed to insure continued compliance with all aspects of the program. Any deficiencies shall be addressed with remedial action.

17. The use of paint in occupied spaces in WDOC facilities is authorized as follows:

i. Latex paint can be utilized in occupied spaces in WDOC facilities.

ii. The use of any other type of paint in occupied spaces in WDOC facilities will need to be approved by the CEO. Prior to use of non-latex paint in occupied spaces, a review will need to be conducted involving the Safety Department, the Maintenance Department, Medical Department and the Manager of the affected area, at a minimum. To review the type of paint to be utilized, the SDS, the required PPE and exposure levels will be consulted and appropriate precautions will be taken. The exposure levels need to be reviewed not only for the people applying the paint, but also anyone else in the area that may be affected.

iii. The SDS for each substance details the necessary provisions and precautions for its use. This direction shall be adhered to.

B. Specific Guidelines for Flammable and Combustible Liquids. Any liquid or aerosol that is labeled "*Flammable*" or "*Combustible*" under the Federal Hazardous Substances Labeling Act shall be stored and used according to label recommendations and in a way that does not endanger life and property.

1. Storage of Flammable and Combustible Liquids

i. Light fixtures and electrical equipment, including plugs and switches, in flammable liquid storage rooms shall conform to the National Electrical Code requirements for installation in hazardous locations.

ii. Storage rooms containing flammable and combustible liquids shall meet the following specifications:

a. Be of fire-resistant construction and properly secured;

b. Have self-closing doors at all openings;

c. Have either a four inch (4") sill or a four inch (4") depressed floor (inside storage rooms only);

d. Have a ventilation system (either mechanical or gravity to flow at or near ceiling/roof) to the outside, and an opposite vent within twelve inches (12") of the floor that provides at least six (6) constant air changes per hour in the room to prevent the accumulation of the flammable vapors;

e. Be protected from the weather;

f. Located away from heating units, machinery, and other reaction or ignition sources; and

g. Posted with "Flammable – Keep Fire Away" or "Caution" signs.

iii. Each storage cabinet shall be:

a. Properly constructed and securely locked;

b. Conspicuously labeled "Flammable – Keep Fire Away";

c. Used to store no more than sixty (60) gallons of flammable or combustible liquids.

iv. Storage rooms and cabinets shall be properly secured and supervised by an authorized staff member any time they are in use. Doors and cabinets shall be placed so that they do not obstruct access to exits, stairways, and other areas normally used for evacuation in the event of fire or other emergency.

v. All portable containers for flammable and combustible liquids other than the original shipping containers shall be approved safety cans listed or labeled by a nationally recognized testing laboratory. Containers shall bear legible labels identifying the contents.

a. Approved metal safety cans with self closing lids shall be used for the handling and use of flammable liquids in quantities greater than one gallon, except that this shall not apply to those flammable liquid materials which are highly visic (hard to pour), which may be used and handled in original shipping confines.

vi. All excess liquids shall remain in their original containers in the proper storage room or cabinet. All containers shall be tightly closed when not in use.

2. Storage of Waste Fluids

i. Waste fluids such as oil, antifreeze, and hydraulic fluid shall be stored in containers that have no severe rust, apparent structural defects, or deterioration.

ii. Each container shall be clearly labeled as to its content.

iii. Each container shall be protected from the weather.

iv. Each container shall be checked monthly.

v. Any leaking container shall be repaired or replaced monthly.

vi. Spillage shall be removed and disposed of according to the SDS.

vii. The waste fluid storage area shall be at least fifty feet (50’) from housing areas with proper NFPA and “Flammable-Keep Fire Away” signs.

3. Use of Flammable and Combustible Liquids

i. The use of any flammable or combustible liquid shall conform with the provisions and precautions listed in the manufacturer's Material Safety Data Sheet.

ii. Flammable and combustible liquids shall be dispensed only by authorized staff. The only acceptable methods for drawing from or transferring these liquids into containers inside a building are:

a. Through a closed piping system;

b. From safety cans;

c. By a device drawing through the top; or

d. By gravity through an approved self-closing system.

iii. An approved grounding and bonding system shall be used when liquids are dispensed from drums.

iv. Under no circumstances shall flammable liquids be used for cleaning.

4. Disposal of Flammable and Combustible Liquids

i. Excess flammable or combustible liquids shall be disposed of properly in accordance with manufacturer's recommendation. (The SDS for each substance prescribes the proper method of disposal and related precautions.)

a. Special containers (*i.e.*, safety disposal cans) shall be used for flammable liquids and for rags used with flammable liquids. All receptacles shall be emptied and clean daily.

b. Non-combustible receptacles shall be provided for combustible refuse at each facility having such refuse and said receptacles shall be accessible for the disposal of such refuse.

5. Spills Involving Flammable and Combustible Liquids. Information on the proper course of action for chemical spills is contained in the SDS for each substance. This direction shall be adhered to in such an event.

C. Specific Guidelines for Toxic and Caustic Substances

1. Storage of Toxic and Caustic Substances

i. Normally, all toxic and caustic materials shall be stored in their original containers in a storage area.

ii. The manufacturer's label shall be kept intact on the container.

iii. When chemicals are placed in a container other than the original container, the new container shall be approved for the type of chemical and be labeled to identify the contents.

2. Use of Toxic and Caustic Substances

i. Toxic and caustic substances shall be drawn only by an authorized staff member or under direct supervision of an authorized staff member.

ii. The SDS for each substance details the necessary provisions and precautions for its use. This direction shall be adhered to.

iii. All toxic and caustic substances drawn shall be recorded as prescribed in this policy.

3. Disposal of Toxic and Caustic Substances. Excess toxic and caustic substances shall be disposed of properly in accordance with manufacturer's recommendation. (The SDS for each substance prescribes the proper method of disposal and related precautions.)

4. Spills Involving Toxic and Caustic Substances

i. Information on the proper course of action for chemical spills is contained on the SDS for each substance. This direction shall be adhered to.

ii. Any spill of a serious nature, or where outside intervention is warranted (*i.e.*, DEQ, OSHA, EPA, *etc.*) shall be reported to the safety manager or designee and the appropriate chain of command. The safety manager or designee shall work with the affected site and shall assist with monitoring to facilitate a resolution agreeable to all involved.

D. Specific Guidelines for Poisonous Substances. Poisonous substances or chemicals are those that pose a very high caustic hazard due to their toxicity. Examples are: methyl alcohol, sulfuric acid, caustic soda, tannic acid.

1. The use of methyl alcohol shall be directly and continuously supervised by staff. Products containing methyl alcohol in a diluted state, such as shoe dye, may be issued to inmates only in the smallest workable quantities for one day's needs.

2. Immediate medical attention is imperative whenever methyl alcohol poisoning or other poisonous substance is suspected.

E. Specific Guidelines for Other Toxic Substances. The following represents only a partial list of toxic substances that may be in use. Following the recommendations on the SDS sheet is always advisable.

1. Permanent antifreeze containing ethylene glycol shall be stored in a locked area and dispensed only by authorized staff.

2. The use of cleaning fluid containing carbon tetrachloride or trichloroethylene is prohibited.

3. Glues of all types may contain hazardous chemicals and shall receive close attention at every stage of handling. Nontoxic products shall be used when possible and practical. Toxic glues shall be stored under lock and used under close supervision.

4. The use of dyes and cements for leather requires close supervision. Nonflammable types shall be used whenever possible and practical.

5. Ethyl alcohol, isopropyl alcohol, and other antiseptic products shall be stored and used only in the medical unit. The use of such chemicals shall be closely supervised. Whenever possible, such chemicals shall be diluted and issued only in small quantities to prevent any injurious or lethal accumulation.

6. The facility safety consultant/qualified designee shall monitor the storage, issuance, and safe application of pesticides in accordance with proper guidelines.

7. Herbicides shall be stored in a locked area. Proper clothing and protective gear shall be used when applying herbicides.

8. Lyes shall be used only in dye solutions and only under the supervision of staff.

F. Diluted Caustics/Toxics

1. Identification. Each facility/unit shall identify cleaning products issued to inmates for general housekeeping. Dilution of all products shall be in accordance with manufacturer's recommendations for task being performed. Issuance shall be in accordance with this policy.

2. Inventory. Diluted products with a hazardous rating (0) or (1) for health, flammability, and reactivity, using the guidelines from the SDS, do not meet the definition of toxic material. Issue logs for these substances are not required but all bottles/containers must be labeled. SDS sheets shall be maintained on these substances and readily available. An inventory of these products shall be maintained in the primary storage area for general control purposes but is not required at the usable area.

3. Automatic Dispenser Systems. Facilities with an automated dispenser system that dispenses diluted products shall develop procedures to address the issuance, inventory, and accountability of dispensed product.

G. Biohazard Use and Storage. All biohazard material shall be stored in appropriate secured containers.

1. Sharps containers and biohazard bags shall be strategically located in areas of use and/or disposal.

2. Removal of biohazardous material shall be conducted by a qualified disposal company. The disposal shall be documented, and a manifest shall be maintained. The disposal company shall provide a receipt documenting the transaction.

H. Responsibilities

1. Inventories. Constant inventories shall be maintained by the area supervisor/manager for all hazardous materials (*i.e.*, flammable, toxic, and caustic substances) used and stored in each department. A permanent record log containing a perpetual listing of inventory shall be maintained for each such substance to accurately reflect acquisitions, disbursements, and the amounts on hand.

2. Safety Data Sheets. Each area/unit within a facility shall maintain a file of the manufacturer's SDS for each hazardous material substance used or

stored in the area/unit. This file shall be updated by the area supervisor/manager as needed.

i. Copies of the SDS shall be made readily available for review to all employees and inmates during each work shift. A copy of information in the file, including the SDS, shall be provided to the staff member responsible for the facility's safety program.

ii. No chemicals shall be used in these work areas before the appropriate SDS have been obtained.

iii. Master files for all SDS sheets shall be available for review by employees and inmates. In addition, SDS sheets shall be kept in close proximity to all stored hazardous materials. Specific locations for SDS sheets and Master files of SDS sheets shall be addressed in each facility's Hazard Communications Program operational procedures.

iv. It is the responsibility of managers and supervisors to keep SDS current and up to date. Any SDS that are no longer used shall be given to the Safety Officer for retention.

v. The facility shall maintain all SDS's for thirty (30) years in accordance with Occupational Safety and Health Administration (OSHA) standards.

3. **Listing of Hazardous Chemicals.** The person responsible for the facility's safety program shall compile a "Chemical Inventory List" (CIL) of all hazardous substances in the facility, including their locations and copies of SDS.

i. This information shall be kept in the safety office (or designated location) and shall be supplied to the local fire department and the facility medical unit.

ii. The CIL shall also contain an up-to-date list of emergency telephone numbers (*i.e.*, local fire department and local poison control center).

iii. The facility shall maintain all CILs for thirty (30) years in accordance with OSHA standards.

4. **Personal Responsibility.** It is the responsibility of each person using these substances to follow all prescribed safety precautions, use personal

protective equipment when necessary, and report all incidents or spills to the proper authority.

I. **Exposure.** Any employee or inmate injured or who becomes ill as a result of an exposure to a hazardous material shall be given immediate first aid and emergency medical services shall be summoned.

1. An accident report documenting the exposure shall be submitted to the facility's human resource office and safety manager.

V. TRAINING POINTS

A. What are the proper storage and handling procedures for flammable or combustible substances?

B. What is the SDS sheet and how is it used?

C. What information is contained in the Hazard Communication Program operational procedure?