

City of St. Louis Department of Public Safety/Division of Corrections
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CHAPTER:	2	Physical Plant	2.5.3
SECTION:	5	Safety and Sanitation	EFFECTIVE DATE: 7 / 23 / 20
SUBJECT:	3	Flammable, Toxic and Caustic Materials	
STANDARDS: ACA – 4 – ALDF: 1C-11			
APPROVED:			REVIEW DATE: 7 / 21 / 20
<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Dale Glass COMMISSIONER OF CORRECTIONS			REVISION DATE: 7 / 30 / 20
Rescind: 2.5.3 dated 2/7/07 Cancel:			

I. POLICY

The Division of Corrections controls the storage, distribution, use, and disposal of flammable, toxic, and caustic materials used within facilities operated by the Division.

II. RESPONSIBILITIES

All Division of Corrections facility assigned staff and contracted staff are responsible for adhering to the following procedures.

III. DEFINITIONS

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

Combustible liquid: A substance with a flash point at or above 100 degrees Fahrenheit (37.8 degrees Centigrade).

Federal Hazardous Substances Act: An act that requires that certain hazardous household products ("hazardous substances") bear cautionary labeling to alert consumers to the potential hazards that those products present and to inform them of the measures they need to protect themselves from those hazards. Any product that is toxic, corrosive, flammable or combustible, an irritant, a strong sensitizer, or that generates pressure through decomposition, heat, or other means requires labeling, if the product may cause substantial personal injury or substantial illness during or as a proximate result of any customary or reasonable foreseeable handling or use, including reasonable foreseeable ingestion by children.

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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.

Flammable liquid: A substance with a flash point below 100 degrees Fahrenheit (37.8 degrees Centigrade).

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.

Material Safety Data Sheet (MSDS): A sheet of information provided by the manufacturer or distributor of a material or chemical that describes the procedures for storing, pouring, using, and disposing of the material/chemical; information regarding how to treat someone medically if exposed to the material/chemical in a hazardous way.

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. PROCEDURES

A. General Information

1. Hazardous materials will be stored in approved storage area away from inmate housing units and employee offices and will be inaccessible to inmates. All flammable materials will be kept in covered containers designed for this specific use. All hazardous material containers will be labeled with the contents of the container and any precautions staff should take in the use of the material. All storage rooms, closets and cabinets will be locked when not in use and supervised by authorized staff when in use. Hazardous materials will not be stored in the same area as food supplies.
2. All flammable, caustic, and toxic substances will be issued (i.e., drawn from supply points to canisters or dispensed) only under the supervision of authorized staff, and in approved containers. Hazardous material containers will be properly labeled as to its content and inspected weekly for weak seals, leaks, fire hazards, losses, and spoilage. A log or inspection file will be used to record distribution and inspection of these materials. Any discrepancy noted will be reported to the Safety Officer. Inmates may be permitted to use hazardous materials for cleaning or maintenance purposes only and always under the direct supervision of authorized staff.
3. All such substances will be issued only in the minimum amount necessary for the task, but in no case more than daily needs.

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4. All persons using substances will be supervised by qualified staff who have received training on the hazards of the substance and understand proper safe handling and appropriate first aid measures. All substances will be accounted for before, during, and after their use.

5. **Table of Common Flammable, Toxic, and Caustic Substances**

COMMON FLAMMABLE	SUBSTANCES
GASOLINE BENZINE (PETROLEUM ETHER) ACETONE HEXANE LACOUER LACOUER THINNER DENATURED ALCOHOL ETHYL ALCOHOL XYLENE (XYLOL) CONTACT CEMENT (FLAMMABLE) TOLUDI (TOLUENE) METHYL ETHYL ETHER METHYL ETHYL KETONE NAPHTHA Y, M, AND P	DIESEL FUELS MOTOR OIL KEROSENE CLEANING SOLVENTS MINERAL SPIRITS AGITENE PAINTS (OIL BASE) LINSEED OIL MINERAL OIL NEATSFOOT OIL GUARDIAN FLUID SUNRAY CONDITIONER

6. **Table of Toxic and Caustic Substances**

TOXIC SUBSTANCES	CAUSTIC SUBSTANCES
AMMONIA CHLORINE ANTIFREEZE DUPLICATING FLUID METHYL ALCOHOL DEFOLIANTS HERBICIDES PESTICIDES	LYE MURIATIC ACID CAUSTIC SODA SULFURIC ACID TANNIC ACID

7. Correctional staff members responsible for purchasing materials and furnishings will make every effort to purchase items which are non-toxic, non-flammable, and non-hazardous.

8. The Correctional staff member will verify with the manufacturer that a Material Safety Data Sheet (MSDS) is available and provided with the purchase of materials.

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9. The Correctional staff member will order materials according to procedures found in Policy #1.2.8 Procurement.
10. Upon receiving any chemicals and hazardous materials (including cleaning supplies), the Inventory Control Coordinator will forward the original copy of the attached MSDS to the Maintenance Supervisor and a copy to the Corrections Medical Department and Safety Officer.
11. The Inventory Control Coordinator will also keep a copy of the MSDS on file.
12. The Inventory Control Coordinator will inform the Maintenance Supervisor immediately when the MSDS is not attached at the time of delivery of the materials. The chemicals should not be used or distributed until the MSDS is on file.
13. The Maintenance Supervisor will request the MSDS from the supplier.

B. Specific Guidelines for Storage, Use, and Disposal

1. Flammable and Combustible Liquids: Any liquid or aerosol that is labeled "Flammable" or "Combustible" under the Federal Hazardous Substances Labeling Act, will be stored and used according to label recommendations and in a way that does not endanger life and property as follows:
 - a. Each storage cabinet will be:
 - (1). Fire-resistant and securely locked.
 - (2). Metal cabinets will be constructed of at least No. 18 gauge sheet steel on the bottom, top, door, and sides of the cabinet; double walled with one and one half inch of air space; riveted or welded joints; three point latch arrangement on the door; door sill at least two inches above the bottom of the cabinet in order to retain spilled liquid.
 - (3). Conspicuously labeled "Flammable-Keep Fire Away."
 - (4). Used to store no more than 60 gallons flammable liquids.
 - (5). Properly secured and supervised by an authorized staff member any time they are in use. Doors and cabinets will 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.
 - (6). All portable containers for flammable and combustible liquids other than the original shipping containers will be approved safety cans listed or

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labeled by a nationally recognized testing laboratory. Containers will bear legible labels identifying the contents.

- b. Use
 - (1) Toxic and caustic substances will be drawn only by an authorized staff member or under direct supervision of an authorized staff member. The Material Safety Data Sheet for each substance details the necessary provisions and precautions for its use. All toxic and caustic substances drawn will be recorded as described in the section on flammable and combustible chemicals.
 - (2) No chemicals are to be mixed other than by manufacturer recommendations.
 - (3) Unused portions are to be returned to the original container in the storage area or, if appropriate, stored in the storage area in a suitable, clearly labeled container.
 - c. Disposal: Disposal guidelines for toxic and caustic liquids shall be in accordance with the Materials Safety Data Sheet for each substance.
 - d. Spills: Guidelines for Flammable and Combustible Liquid spills shall be in accordance with the Materials Safety Data Sheet for each substance.
3. Poisonous Substances:
- a. Poisonous substances or chemicals are those that pose a very high caustic hazard due to their toxicity; examples: glass cleaner, chemicals used to clean the sinks, showers and toilets; methyl alcohol, sulfuric acid, caustic soda, tannic acid. There are special precautions on the control and use of methyl alcohol (also known as wood alcohol or methanol), which is a flammable, poisonous liquid commonly used in industrial applications (i.e., shellac thinner, paint solvent, solvents for leather cements and dyes, flushing fluid for hydraulic brake systems.)
 - b. Immediate medical attention is imperative whenever poisonous substances are ingested.
4. The following represents only a partial listing of toxic substances which may be in use. Following the recommendations on Material Safety Data Sheets is always advisable.

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- a. Permanent antifreeze containing ethylene glycol will be stored in a locked area and dispensed only by authorized staff.
 - b. The use of cleaning fluid containing carbon tetrachloride or trichloroethylene is prohibited.
 - c. Glues of all types may contain hazardous chemicals and will receive close attention at every stage of handling. Nontoxic products will be used when possible. Toxic glues will be stored under lock and used under close supervision.
 - d. Ethyl alcohol, isopropyl alcohol, and other antiseptic products will be stored and used only in the medical unit. The use of such chemicals will be closely supervised. Whenever possible, such chemicals will be diluted and issued only in small quantities so as to prevent any injurious or lethal accumulation.
 - e. Pesticide and herbicide application at the facility will be conducted by individuals trained and familiar in the use of these chemicals. The Maintenance Supervisor will be responsible for monitoring the proper storage, issuance and safe application of these pesticides. All pesticides and herbicides will be stored under lock.
 - f. Only chemicals approved by the Environmental Protection Agency will be used. DDT and 1080 (sodium fluoracetate) are among those chemicals absolutely prohibited.
 - g. Herbicides and pesticides will be stored in a locked area. Proper clothing and protective gear will be used when applying herbicides.
5. Other Substances: At a minimum, Material Safety Data Sheets are required for any substance maintained which has a warning label. Substances used as cleaning products, such as bleach, oven cleaner, and cleanser, will require the same control measures as toxic/caustics and flammable substances.

C. Responsibilities

1. Constant inventories will be maintained for all hazardous material (flammable, toxic, and caustic substances) used. A permanent record log containing a perpetual listing of inventory will be maintained for each such substance to accurately reflect acquisitions, disbursements, and the amounts on hand.
2. The person responsible for the facility's safety program will compile a Chemical Inventory List of all hazardous substances in the facility, including their locations and copies of Material Safety Data Sheets. This information will be kept in the safety office (or designated location) and will be supplied to the local fire department and the facility medical unit. The Chemical Inventory List will

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

3. Personal Responsibility:
 - a. 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.
 - b. The Inventory Control Coordinator will distribute the items to the housing floors as supplies are ordered, and the Inventory Control Coordinator will forward a copy of the Material Safety Data Sheet (MSDS) to the Floor Supervisor.
 - c. The Inventory Control Coordinator is responsible for keeping an up-to-date manual of all MSDS sheets for all products used and stored by facilities operated by the Division of Corrections.
 - d. The Inventory Control Coordinator will label containers, including containers other than the original, as necessary with the substance and any precautions Correctional Staff Members should take in the storage, distribution, use, and disposal of the material.
 - e. The Area Supervisor will post the MSDS in the storage area where the materials are to be kept.
 - f. Correctional staff members will familiarize themselves with the MSDS prior to distributing and using any hazardous materials.
 - g. Correctional staff members will use materials in the manner specified in the MSDS.
 - h. Correctional staff members will adequately ventilate the areas in which flammable and toxic materials are used.
 - i. Inmates will be given standard household-type cleaning supplies according to the procedures found in policy #2.4.4 Housekeeping.
 - J. The correctional staff member will collect all unused portions of the material and return it to the proper storage container, and the container to the proper storage area.
 - k. Correctional staff members responsible for cleaning supplies and storage areas (e.g. Maintenance Staff, Floor Supervisors, Floor Officers, Housing Officers, etc.) are responsible for verifying the proper use, distribution, storage and disposal of materials on a daily basis.

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1. The Safety Officer is responsible for inspecting storage areas on a weekly basis; the Safety and Sanitation Team is responsible for inspecting storage areas on a monthly basis.
- m. The Inventory Coordinator and Maintenance Supervisor will maintain current lists on the amounts and types of hazardous materials stored and used within the facility.

D. Diluted Caustic/Toxics

1. Cleaning products issued to inmates for general housekeeping will be identified. Dilution of all products will be in accordance with manufacturers recommendations for task being performed. Issuance will be in accordance with Section VII - General Information, item of this procedure.
2. Diluted products with a hazardous rating (0) or (1) for health, flammability and reactivity, using the guidelines from the MSDS, do not meet the definition of toxic material. Issue logs for these substances are not required but all bottles / containers must be labeled. MSDS sheets must be maintained on these substances and readily available. An inventory of these products should be maintained in the primary storage area for general control purposes but is not required at the usable area.

E. Delivery and Control of Caustic and Toxic Chemicals in the Housing Units

1. The Inventory Control Coordinator or designee will deliver caustic and toxic chemicals and the Inventory Supply Log to designated storage closets located in the inmate housing area.
2. The Inventory Control Coordinator or designee will measure chemicals and leave only the approved amounts required for daily cleaning and sanitation details.
3. The manufacturer's label will be kept intact on the containers. The chemicals will be stored in their original containers when possible. If chemicals are removed from the original container; the new container will be an approved container for the chemical type and the new container will be clearly labeled.
4. Chemicals will not be mixed other than by manufacturer recommendations.
5. The Inventory Supply Log will be stored in the housing unit or the designated storage area and will include documentation of the name of each chemical stored in the closet. The chemical storage containers or spray bottles will be clearly labeled to differentiate the chemical type.
6. The correctional staff member assigned in the area where the storage closet is located will maintain a key and ensure the closet door is secured when not in use.

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7. Chemicals will be removed from the storage closet only by an authorized correctional staff member in the following manner: