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Colorado Department  
of Public Health  
and Environment

**DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

**Consumer Protection Division**

**6 CCR 1010-6**

**STATE BOARD OF HEALTH**

**RULES AND REGULATIONS GOVERNING SCHOOLS**

**(Chapters 1, 3 and 9 amended July 20, 2005, effective October 2, 2005)**

**Chapter Eight**  
**Laboratory, Industrial, Art, And Vocational Hazards**

**General**

- 8-101 Provisions shall be made for the protection of students engaging in arts, crafts, industrial arts, physical sciences, vocational, educational or any activities where hazardous chemicals, hazardous devices or hazardous equipment are used. These provisions include the development and posting of operating instructions, regulations and procedures.
- 8-102 Toxic or hazardous materials shall be stored in approved laboratory containers, separated by reactive group and stored in a ventilated, locked, fire-resistant area or cabinet. The ventilation requirement of this section may not be required where minimum quantities of such materials are stored for daily use.
- 8-103 Containers of chemicals, poisons, corrosive substances and flammable liquids shall be clearly labeled with the name of the material and the date the material entered the school.
- 8-104 Prohibited chemicals are those chemicals that pose an inherent, immediate and potentially life threatening risk, injury or impairment due to toxicity or other chemical properties to the students, staff or other occupants of the school. These chemicals are prohibited from use and/or storage at the school and the school is prohibited from purchasing or accepting donations of such chemicals. Prohibited chemicals are listed in Appendix A to this regulation.
- 8-105 Restricted chemicals are those chemicals that are restricted by use, and/or quantities. If restricted chemicals are present at the school, each chemical shall be addressed in the school's written emergency plan as addressed in sections 8-112 and 8-113 of these regulations. Restricted chemicals are listed in Appendix B to this regulation.
- 8-106 Restricted chemicals (demonstration use only) are a subclass in the restricted chemical lists that are limited to instructor demonstration. Students may not participate in the handling or preparation of restricted chemicals as part of a demonstration. If restricted chemicals (demonstration use only) are present at the school, each chemical shall be addressed in the school's written emergency plan as addressed in sections 8-112 and 8-113 of these regulations. Demonstration only chemicals are listed in Appendix B2 to this regulation.
- 8-107 Exposure to noise, or toxic liquids, dusts, gases, mists, fumes or vapors or other hazards shall be controlled to avoid health hazards.

- 8-108 All chemicals, solvents, and hazardous substances shall be inventoried by the school a minimum of once a year. The inventory shall include the name of the compound, the amount, and the date it entered the school. A copy of the inventory shall be kept on file in a location away from the areas where the aforementioned materials are stored.
- 8-109 A current material safety data sheet shall be provided for all poisonous, toxic, or hazardous substances and shall be available for review upon request.
- 8-110 In the absence of more stringent guidelines the 2000 National Fire Protection Association Code 30 Flammable and Combustible Liquids Code and 2000 National Fire Protection Association Code 45 Fire Protection for Laboratories Using Chemicals shall be used as guidelines for the proper storage, handling and use of chemicals in the school.
- 8-111 Refrigerators used for flammable compounds shall be prominently marked to indicate they meet the appropriate design requirements for safe storage of flammable liquids.
- 8-112 A written plan for response to and cleanup of chemical spills shall be provided by the school. A copy of the plan shall be kept on file in a location away from the areas where chemicals are stored.
- 8-113 A written plan that explains the proper storage, handling and disposal procedures for all poisonous, toxic or hazardous substances shall be on file in each school in a location away from the areas where these substances are stored and shall be available for review upon request.
- 8-114 A list of first aid procedures for accidental poisoning shall be posted. The telephone number and location of the nearest poison control center shall be posted near the telephone.
- 8-115 The storage, preparation, and consumption of food and drink is prohibited in any area where there are poisonous, toxic or hazardous substances.
- 8-116 Glassware shall be properly constructed and designed for its intended use and shall be handled and stored in a safe manner.
- 8-117 Aspirators or suction bulbs shall be used for drawing liquids into pipets. The mouth must not be used directly on the pipets.

- 8-118 Eye protection, that meet the American National Standards Institute 1989 Z87.1 Standard – Practice for Occupational/Education Eye and Face Protection must be worn by all students participating in, observing, or in close proximity to any experiment or activity which could result in eye injury. Eye protection glasses, goggles, face shields, and similar eye protection devices shall be issued clean and properly sanitized and stored in a protected place.
- 8-119 An easily accessible fire blanket must be provided in each laboratory or other area where an open flame is used.
- 8-120 Where there is exposure to skin contamination with poisonous, infectious or irritating materials, a hand washing facility shall be available.
- 8-121 An easily accessible operational eye wash fountain must be provided in each laboratory or other areas where corrosives or irritating chemicals are used. The eye wash fountain shall be clean and must be tested annually. The use of portable eye wash bottles as substitutes is not permitted.
- 8-122 An easily accessible operational safety shower, capable of providing continuous flowing water, shall be provided for each laboratory or other areas where corrosive or irritating chemicals are used. The safety shower can be centrally located so as to serve more than one area if doors are not locked, and convenient prompt access is available.
- 8-123 Master gas valves and electric shut-off switches shall be provided for each laboratory or areas where power equipment is used.
- 8-124 All emergency and safety equipment including master valves, shut off switches, eye wash fountains, safety showers, fire extinguishers (appropriate for the intended use), and fire-alarm pull stations and other similar equipment shall be tested at least once annually and labeled for high visibility.
- 8-125 Use of X-ray machines and other electronic devices producing ionizing or non-ionizing radiation and radioactive materials and equipment shall conform to the Colorado Department of Public Health and Environment Rules and Regulations Pertaining to Radiation Control, 6 CCR § 1007-1.

### **Ventilation**

- 8-201 All areas shall be adequately ventilated so that exposures to hazardous or toxic materials are maintained to a safe level. In the absence of more stringent guidelines the American Conference of Governmental Industrial Hygienists 1989 Threshold

Limit Values and Biological Exposures Indices shall be used as a guideline to determine safe levels.

- 8-202 Local exhaust ventilation shall be provided so that contaminants are exhausted away from the student and not through the breathing zone.
- 8-203 Sufficient fume hood capacity ventilation shall be provided and shall be used for any activity producing hazardous toxic or noxious gases, mists, vapors, or dusts.
- a. Hoods must exhaust directly to the outside and shall be located a minimum of 10 feet from any building air-intakes or building openings.
  - b. Discharges from any exhaust hood must meet applicable Colorado Air Pollution Standards.
  - c. A minimum face velocity of 100 feet/minute for general laboratory hoods must be provided.
  - d. Air flow of fume hoods must be tested at least once a school year.