

**Discussion and Notes**

*Did you know? The MSDS for all Flinn chemicals may be downloaded from the Flinn Scientific Web site at [www.flinnsci.com/search\\_MSDS.asp](http://www.flinnsci.com/search_MSDS.asp).*

*Remember that science teachers are the most visible and most important role models for safety in the science classroom. Wear goggles whenever you are working in the lab, even (or especially) when class is not in session. Students learn from your good example!*

## General Safety Rules for Science Teachers

As employees of the school district, all science teachers must follow general safety rules to reduce the risk of accidents in the science laboratory. Adopting and following these rules and procedures will improve the overall safety profile in your science classes.

1. Carefully plan all lab activities. Practice experiments and demonstrations beforehand, and make sure you thoroughly understand the science and procedure before performing a lab activity for the first time. Never perform a demonstration for the first time in front of the class. Evaluate the safety of the demonstration, identify key areas where an accident may occur, and practice, practice, practice!
2. Review the properties and hazards of all chemicals you will be using in the lab by reading the Material Safety Data Sheets (MSDS) and applicable warnings in the *Flinn Scientific Catalog/Reference Manual*.
3. Reduce exposure to hazardous chemicals. Avoid contact of all chemicals with eyes and skin, and pay special attention to respiratory irritants and inhalation hazards, where the “immediate effects” may not be obvious.
4. Do not underestimate chemical hazards and risks—few chemicals are without any potential hazards. Even for chemicals with no known hazard, exposure should be kept to a minimum.
5. Read all chemical labels prior to use.
6. Provide a basic set of safety rules for all students taking science, and explain the rules to the students. Review the safety rules frequently and enforce all of the rules consistently. Demand compliance!
7. Wear appropriate eye protection at all times and enforce the school’s goggle policy. The simplest policy will be the most effective—“goggles must be worn any time chemicals, heat or glassware are used in the laboratory.”
8. Train students on how to use all safety equipment in the laboratory (e.g., eyewash, safety shower, fire extinguisher, etc.). Show all students and employees where the safety devices are located so they can be quickly found in an emergency.
9. Only authorized personnel should be allowed in the chemical storeroom. The door to the chemical storeroom should be locked at all times.
10. Wear appropriate personal protective equipment at all times. This is especially important when you are working in the lab before and after school.
11. Develop good “chemical hygiene” practices and habits. Never eat in the lab or drink out of laboratory glassware. Always wash your hands thoroughly before leaving the lab area.
12. When leaving the lab, even for a short period, make sure the prep area and laboratory doors are locked. You must make every effort to prevent theft.
13. Know appropriate emergency procedures in the event of a chemical spill, fire, injury or power failure.
14. Know and understand the school’s first aid policy. If an accident occurs and you don’t know what to do, call 911 without hesitation.
15. Know where a telephone or some other means of emergency communication is located. Post emergency telephone numbers by each phone.

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16. Do not block fire exits. Keep all aisles clear. Have an alternative evacuation route in the event your primary route becomes blocked.
17. Practice your emergency plans.
18. Know where and how to use master utility controls to shut off the gas, electrical and water supplies.
19. Do not operate electrical equipment with wet hands.
20. In the event of an accident, when time allows, fill out an accident report describing the event in detail.

This "Top 20" list of general safety rules will help promote safety awareness, but the list is by no means exhaustive. The best way to prevent accidents is to "think safety" all the time, and to remember that safety is never "done!" Discuss safety incidents as they arise in the future, and continue to add to this list of general safety rules and procedures.

### **Flinn Can Help**

If you have questions about any of the general employee safety rules and procedures discussed above, please call our Technical Services Department at 1-800-452-1261 or refer to the current *Flinn Scientific Catalog/Reference Manual*. We will gladly answer any and all of your questions.

### **Flinn Scientific Values Your Support**

Flinn Scientific has provided your Science Department Safety Training Notes. Without your orders, the safety training notes and the indispensable *Flinn Scientific Catalog/Reference Manual* would not be possible. Please continue to support our efforts to improve safety in school science labs by sending Flinn Scientific your valuable orders.

### **Next Month's Topic**

### **Chemical Labeling**

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Visit the Flinn Scientific Web site at [www.flinnsci.com](http://www.flinnsci.com) to review the Flinn Scientific Student Safety Contract, which is available in both middle school and high school versions, in English and Spanish!

## General Safety Rules for Science Teachers

As employees of the school district, all science teachers must follow general safety rules and procedures at all times to reduce the risk of accidents. Taken together, these basic rules comprise a strong “backbone” for the staff safety program. While most of the rules are based on common sense, they should nevertheless be reviewed and discussed. Promoting safety awareness is a key requirement for improving the overall safety profile of the science department and the school.

This safety note should take approximately 6–8 minutes to review. The discussion period will vary depending on the issues that need to be addressed.

It is very important to keep a copy of these safety training notes and a signed attendance sheet to verify that regular safety training meetings were held. The sign-up sheet is almost as important as the meeting notes and is usually the first thing that is reviewed by regulatory inspectors. A copy of the sign-up sheet we suggest using can be found at [www.flinnsci.com/Sections/Safety/SNotes/signup.pdf](http://www.flinnsci.com/Sections/Safety/SNotes/signup.pdf).

### Materials (one per staff member)

- ◆ Flinn Scientific Science Department Safety Training Notes, Volume 10–5
- ◆ Sign-up sheet (one for group)

### Additional Questions for Discussion

1. Is there a need for, or is there already in place, a mentoring program for new science teachers so they have someone to consult as they plan their lab activities?
2. Are students in all science classes required to sign a safety contract?
3. What is the school's first aid policy? When should we call 911?
4. What appropriate emergency procedures should be followed in the event of a chemical spill, fire, injury or power failure?

### We Welcome Your Comments

Are the Science Department Safety Training Notes useful to you? Are they working for you and your department? We would love to hear from you if you have any suggestions for topics that you would like to see covered or for how we can improve these safety training notes. Please e-mail us with your comments and suggestions. Our e-mail address is [flinn@flinnsci.com](mailto:flinn@flinnsci.com).