HAZARD COMMUNICATION PROGRAM

Introduction and Scope

The Hazard Communication Standard (California Code of Regulations, Title 8, Section 5194) establishes uniform requirements to ensure that all chemicals used in California workplaces are evaluated to determine their hazards. This information must be provided to employers by the manufacturer and subsequently to their affected employees. Chemical manufacturers must perform the evaluations and convey the hazard information obtained to users by means of labels on containers and material safety data sheets (MSDS). Employers must educate their employees to understand the hazards associated with the hazardous materials they work with, and ensure that resources such as MSDS and container labels for the materials are maintained, accessible and consulted as necessary.

The purpose of SBVC Hazard Communication Program is to establish guidelines and policies that ensure all members of the San Bernardino Valley College ("SBVC", or "College") community are apprised of the chemical hazards to which they may be exposed and provide a foundation of knowledge to enable employees to make informed decisions about handling these materials. The safety of employees working with potentially hazardous chemicals is related to the value an institution places on the protection of their health and the environment. Workplace safety is also related to positive employee motivation and good judgment. Therefore, it is the responsibility of the management, administrators, supervisors, faculty, staff, and student workers to adhere to the specifics and the intent of this Hazard Communication Program in order to reduce risk and ensure a safe environment. The provisions of this SBVC Hazard Communication Program (HCP) apply to any hazardous substance, which is known to be present in the workplace.

Consumer products packaged for and used by the general public, and used in the same manner and frequency used by consumers, are excluded from the program. Examples of such products include:

- Glass cleaner (Windex)
- Dish detergent (Cascade)
- Correction fluid (White Out)

Responsibility

The Vice President of Administrative Services (VPAS) serves as the designated **Hazard Communication Program Coordinator** and responsible for compliance with these provisions. The VPAS' office, located in the Administration and Student Services Building, Room 206, is the designated repository for hard copies of all MSDS documents. MSDS sheets must also be maintained in the immediate work area where the product is actually used. Please refer to **Appendix A** of this document to review the components and interpretation of a typical MSDS.

The Hazard Communication Coordinator will request support from each SBVC employee to maintain a current and accurate library of MSDS documents and an accurate inventory of hazardous materials. Management or supervisory employees will be held responsible for ensuring chemical containers are appropriately labeled and that all employees are provided specific training for working with those materials. Such training must include details of this specific Hazard Communication Program, the location of MSDS files and site-specific safety procedures. This written Hazard Communication Program and MSDS file/library must be accessible to all employees during their normal working hours.

Electronic copies of MSDS forms are available at any time by utilizing the following website: **http://sbccd.keenan.schoolmsds.com/.**

All SBVC employees are responsible for being familiar with the materials they use, using them in a safe and responsible manner. Employees are also responsible for requesting and seeking supervisory support before using new materials or using materials in unusual situations. Employees who are aware of new materials being introduced into the workplace must confirm their supervisor's awareness of the development. Training on the proper use of new materials, and specific requirements for employee safety while using these products must be provided by the responsible manager or supervisor. It is the responsibility of the department supervisor or administrator to forward MSDS information for any new product to the Office of the Vice President of Administrative Services. SBVC administrators, managers and supervisors are responsible for maintaining copies of these employee training records, evaluating training requirements for employees working within that area, and forwarding copies of employee training records to the Office of the Vice President of Administrative Services.

Each SBVC employee is to be informed of the content of the Hazard Communication Program, the hazardous properties of chemicals they work with, and provided with appropriate training to work safely with these chemicals. Failure to abide by the conditions referenced in this program will be grounds for progressive disciplinary action, as referenced in the SBVC Injury Illness Prevention Program.

The San Bernardino Valley College Hazardous Communications Program applies to all SBVC faculty, staff, students, visitors, and volunteers, and will be enforced in all of the following facilities:

Buildings

Administration/Student Services (AD/SS)
Art Center (ART)
Auditorium (AUD)
Business Building (B)
Chemistry Building (C)
Campus Center (CC)
Custodial & Grounds Building
Liberal Arts Building (LA)
Maintenance & Operations Building
North Hall Building (NH)
Planetarium (PL)
Physical Science Building (PS)
Snyder Gym (Men's) (SG)
Technical Building (T)
Women's Gym (WG)
Child Development Center (CDC)
Health & Life Science Building (HLS)
Library (LIB)
Grounds & Custodial Maintenance

List of Hazardous Chemicals

Current inventories of hazardous chemicals must be updated whenever new or different materials are received, or products are discontinued. Each area manager or supervisor is responsible for sending updates to the Office of the Vice President of Administrative Services.

Materials that must be inventoried include cleaning agents, adhesives, copying supplies, art materials, paints, strippers, solders and welding supplies, fertilizers, pesticides, and compressed gases that present potential hazards according to the manufacturer's MSDS.

Proposition 65

A clear and reasonable warning must be given to all individuals prior to any exposure to any listed chemical that can cause cancer, birth defects, or other reproductive harm. Under Proposition 65, warnings are required for consumer product exposures, occupational exposures and environmental exposures.

Proposition 65 warnings for such exposures on the SBVC campus will be communicated by one, or a combination of, the following:

1. A warning on a product label;

2. A warning or sign posted conspicuously in the workplace;

3. or, a warning that complies with the California "Hazard Communication Regulation" (T8CCR5194)

Material Safety Data Sheets (MSDS)

Material Safety Data Sheets (MSDS) are designed is to inform the user of the potential hazards associated with the materials you are using. The information provided on the MSDS can help to protect the employee and enable them to respond appropriately to emergency situations. As previously stated, each department, shop or operational unit must have available an MSDS for every substance on their hazardous chemical inventory. Please refer to **Appendix A** of this document to review the components of a typical MSDS.

The Hazard Communication Coordinator will request copies and maintain an MSDS for each hazardous material used throughout all of the college departments. MSDS must be readily accessible to employees, including those working in remote or field locations.

Alternatively, MSDS may also be accessed electronically (i.e., via computer locally or via Internet). On-line MSDS can be accessed at: **http://sbccd.keenan.schoolmsds.com/ .** MSDS information must be readily available to all employees and Cal/OSHA upon request.

MSDS forms must be received from the manufacturer prior to, or at the time of, delivery of the first shipment of any potentially hazardous chemical. MSDS information must be required for each delivery of material. Materials shipped without the proper MSDS will not be accepted.

Labels and Other Forms of Warning

All SBVC administrators shall provide the necessary oversight to ensure that hazardous chemicals found in SBVC facilities are properly labeled. If a label is defective or deteriorating, it is every employee's responsibility to see that a proper replacement label is applied so that the identity of a material is not lost. Damaged or defaced labels on incoming containers should be noted upon receipt and refused for delivery. Manufacturer's container labels must list the chemical identity, concentration, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other party responsible for manufacturing the product.

Secondary containers (those containers into which material is transferred) must be labeled with the name of the material and the manufacturer as it appears on the MSDS, concentration along with related hazard warnings and PPE requirements. Managers and supervisors must ensure that employees are trained to recognize label warnings when working with hazardous chemicals.

The area supervisor shares responsibility for ensuring that containers are properly labeled and that the label data is current.

Training

Each employee who works with, or is potentially exposed to, hazardous chemicals will receive initial and refresher training on the Hazard Communication Standard and the safe use of hazardous chemicals. Such training will be provided by a competent individual familiar with the material. Additional training must be provided for employees whenever new or different hazardous materials are introduced into their work areas. This training will emphasize these elements:

1. Requirements of the hazard communication regulation, including employee rights(e.g., employees receiving and sharing with their physician information on hazardous chemicals to which they may be exposed)

2. Information about the location and availability of the employer's written hazard communication program

3. Identification of any operation in the employee work area where hazardous materials are present

4. Information on how to obtain, read, and understand MSDS and labels, including data on the physical and health hazards of the substances

5. How to detect the presence or release of hazardous substances (e.g., appearance and odor)

6. Protective measures to be used, such as work practices, personal protective equipment, and emergency procedures

Note: T8CCR3203(b)(1), "Injury and Illness Prevention Program", requires that employee training be documented and records retained for at least one year.

Contractors

To ensure that outside contractors work safely on the SBVC campus, and to protect SBVC employees from chemicals used by outside contractors, the manager or supervisor issuing the Purchase Request is responsible for giving and receiving the following information from contractors:

- Hazardous substances, including Proposition 65 chemicals, to which they may be exposed while on the job site, as well as any substances they will be bringing into the workplace (To this end, we will provide contractors with information on the SBVC labeling system and access to MSDS.)
- Precautions and protective measures that employees may take to minimize the possibility of exposure

Note: If anyone has questions about the SBVC Hazardous Communication Program, please contact the SBVC Vice President of Administrative Service to ensure that the policies are carried out and the plan is effective.

Non-Routine Work Tasks

Periodically, employees may be required to perform hazardous non-routine tasks. Any employee asked to perform any such non-routine task that involves possible chemical hazards must do so only with the knowledge and guidance of their supervisor. The supervisor must ensure that employees are informed of:

1) The SBVC Hazard Communication Program

2) The specific hazards associated with the performance of tasks being performed

3) Protective measures that must be used

4) Measures the department has taken to lessen these hazards such as ventilation, personal protective equipment, or the presence of another employee.

5) Specific emergency procedures to be used in the event of an accident or injury.

APPENDIX A:

"HOW TO READ A MSDS"

Provided with Approval of Flinn Scientific, Inc.

http://www.flinnsci.com/Sections/Safety/chemicalSafety/L1032-1033_HS_LAB_SAFETY_ART.pdf

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How to Read an MSDS

Material Safety Data Sheets (MSDS) are an important requirement of the OSHA Hazard Communication Standard. MSDS have become important documents to inform employees, students, and the general public about how materials can be safely handled, used, and stored. Since Flinn provides chemicals only to schools, we have written Flinn MSDS specifically for teachers and their students. Using clear and straightforward language, each Flinn MSDS provides all the relevant safety and hazard information in a consistent, useful, and easy-to-read two-page format. Flinn MSDS follow the American National Standards Institute (ANSI) and Chemical Manufacturer Association (CMA) 16-section MSDS format, which exceeds OSHA requirements. The 16 sections are divided into four major areas, each designed to answer a specific question.

What is the material and what do I need to know immediately in an emergency?
Sections 1–3.

1 It is important that the chemical name on the label match the name on the MSDS. Many chemicals have similar names, but very different properties.

2 The CAS# is the single identifying number for each specific substance. CAS# should match the CAS# on the bottle label.

3 The most important section! The first part describes the material's appearance. If it doesn't look like this, STOP. Do not use it. It may be more or less hazardous.

The second part provides an overview of the most significant and immediate concern when using this material. It will include reactivity, adverse health effects, and flammability information.

4 Flinn At-A-Glance™ provides a numerical guide in five categories. If 2's and 3's are present, read the MSDS for further information.

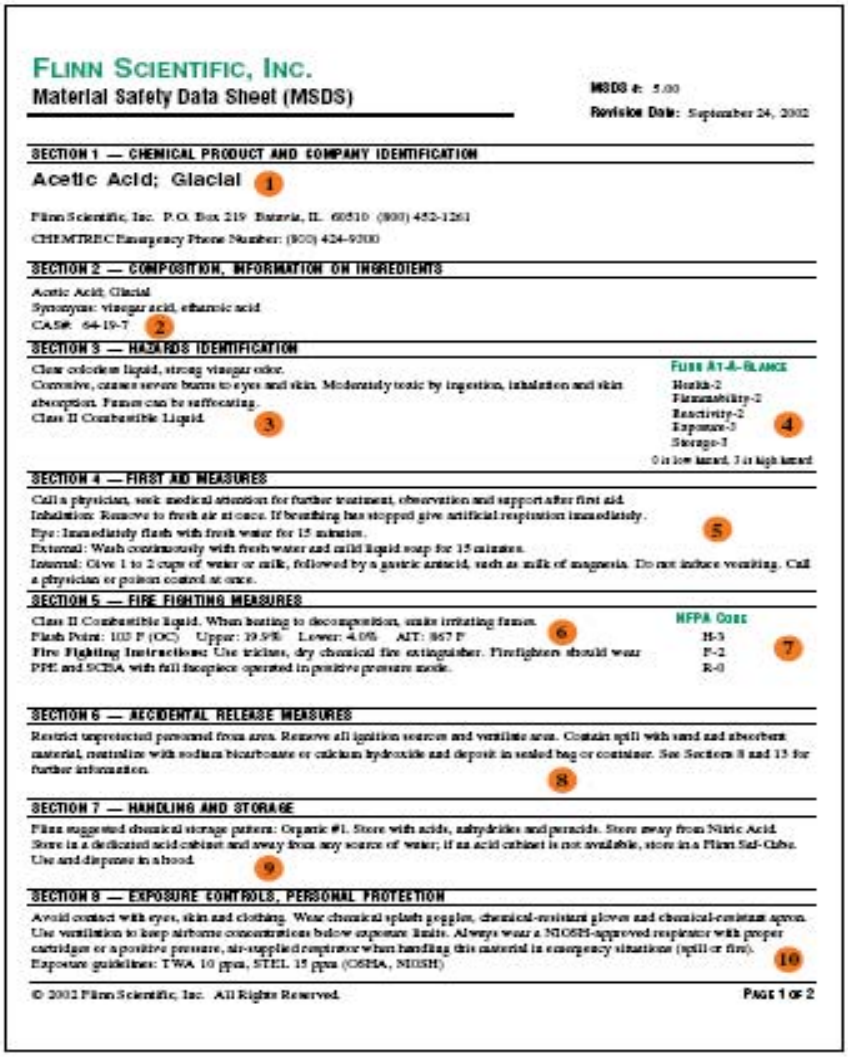
What should I do if a hazardous situation occurs?
Sections 4–6.

5 Seek medical attention. These first-aid measures are only meant for immediate first aid and should always be followed up with professional medical care.

6 This section is written for the firefighter. Flash point (the lowest temperature at which enough vapor is present to form an ignitable mixture with air); upper and lower flammable limits; and the auto ignition temperature (AIT) are common properties included in this section.

7 The NFPA code is a numerical code established by the National Fire Protection Association. It rates the substance *under fire conditions* in four categories. Health, Flammability, Reactivity, and unusual reactivity: 4 is a severe hazard, 0 is no hazard.

8 How to clean up a spill. Always remove unprotected personnel from area and make sure all students are safe. Contain the spill with sand or absorbent materials.



FLINN SCIENTIFIC, INC.
Material Safety Data Sheet (MSDS)

MSDS #: 5.00
Revision Date: September 24, 2002

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
Acetic Acid; Glacial 1
Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS
Acetic Acid, Glacial
Synonyms: vinegar acid, ethanoic acid
CAS#: 64-19-7 2

SECTION 3 — HAZARDS IDENTIFICATION
Clear colorless liquid, strong vinegar odor.
Corrosive, causes severe burns to eyes and skin. Moderately toxic by ingestion, inhalation and skin absorption. Fumes can be suffocating.
Class II Combustible Liquid. 3

Flinn At-A-Glance
Health-2
Flammability-2
Reactivity-2
Exposure-3
Storage-3 4
0 is low hazard, 3 is high hazard

SECTION 4 — FIRST AID MEASURES
Call a physician, seek medical attention for further treatment, observation and support after first aid.
Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.
Eye: Immediately flush with fresh water for 15 minutes.
External: Wash continuously with fresh water and mild liquid soap for 15 minutes. 5
Internal: Give 1 to 2 cups of water or milk, followed by a gastric antacid, such as milk of magnesia. Do not induce vomiting. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES
Class II Combustible Liquid. When heating to decomposition, emits irritating fumes.
Flash Point: 103 F (OC) Upper: 19.9% Lower: 4.0% AIT: 867 F 6
Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA Code
H-3
F-2 7
R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES
Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material, neutralize with sodium bicarbonate or calcium hydroxide and deposit in sealed bag or container. See Sections 8 and 13 for further information.
8

SECTION 7 — HANDLING AND STORAGE
Flinn suggested chemical storage pattern: Organic #1. Store with acids, anhydrides and peracids. Store away from Nitric Acid. Store in a dedicated acid cabinet and away from any source of water; if an acid cabinet is not available, store in a Flinn Sel-Cube. Use and dispense in a hood. 9

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION
Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).
Exposure guidelines: TWA 10 ppm, STEL 15 ppm (OSHA, NIOSH) 10

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How can I prevent hazardous situations from occurring?
Sections 7–11.

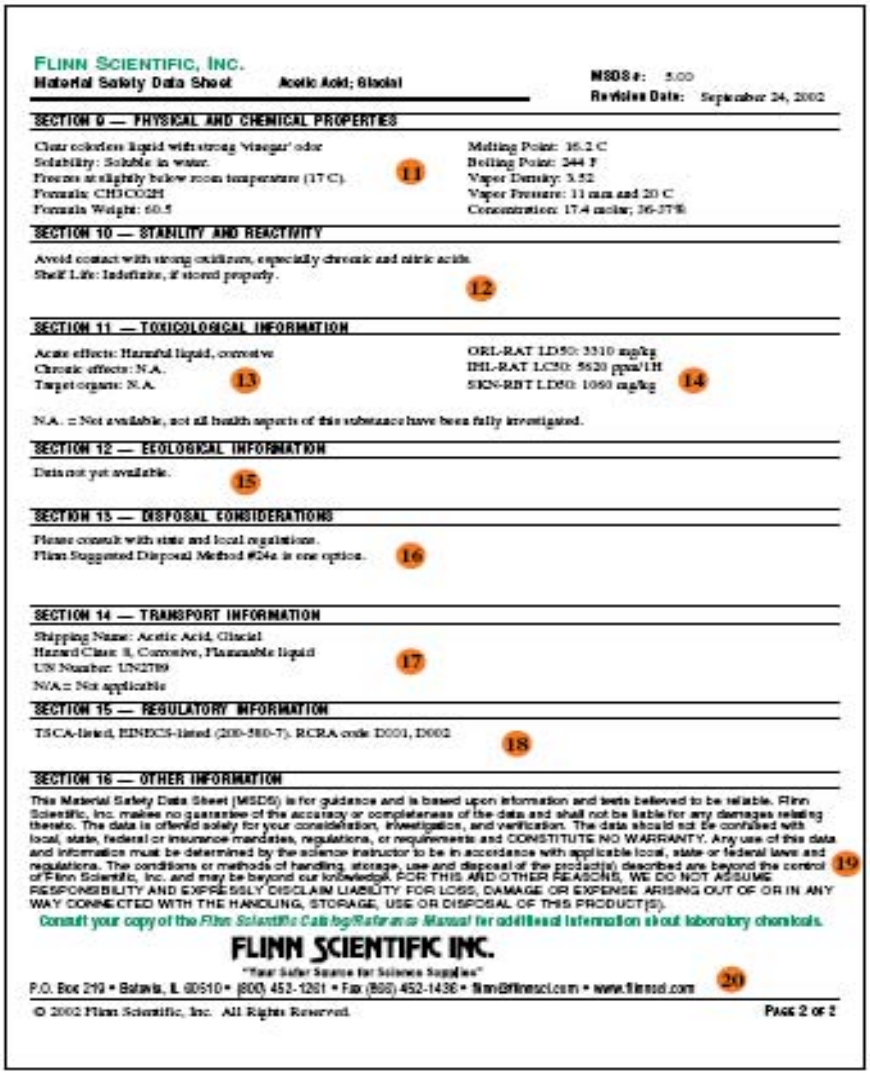
9 Use the Flinn Suggested Chemical Storage Pattern to prevent accidents and improve safety. Special storage and usage tips are also included.

10 Wear personal protective equipment such as goggles, gloves, and an apron. See page 1034–1035 for an explanation on TWA and STEL.

HOW TO READ AN MSDS continued on next page.

How to Read an MSDS, continued

Each Flinn MSDS follows the same format and the information is always found in the same location, making it a valuable resource in the event of an emergency. With your first chemical order of the year, every teacher will receive a CD from Flinn Scientific containing all of our MSDS. You may also request another CD at any time. Flinn MSDS are updated on a regular basis, guaranteeing the most up-to-date safety information possible. Flinn sells a complete MSDS Library in two versions, a hard copy version in two binders or a MSDS software program. For a more detailed description of our MSDS Library, please refer to pages 1011–1012. For our customers' convenience, Flinn has also placed a complete set of MSDS on our Web site. Simply go to www.flinnsci.com and click on the *Safety* icon—individual MSDS are easy to find and copies may be printed from your computer.



FLINN SCIENTIFIC, INC.
Material Safety Data Sheet Acetic Acid; Glacial
MSDS #: 5.00
Revision Date: September 24, 2002

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear colorless liquid with strong 'vinegar' odor
Solubility: Soluble in water.
Freezes at slightly below room temperature (17 C).
Formula: CH_3CO_2H
Formula Weight: 60.5

Melting Point: 16.2 C
Boiling Point: 244 F
Vapor Density: 3.52
Vapor Pressure: 11 mm and 20 C
Concentration: 17.4 molar; 36-37%

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizers, especially chromic and nitric acids.
Shelf Life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Harmful liquid, corrosive
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD50: 3310 mg/kg
IHL-RAT LC50: 5620 ppm/1H
SKN-RBT LD50: 1060 mg/kg

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please consult with state and local regulations.
Flinn Suggested Disposal Method #24a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping Name: Acetic Acid, Glacial
Hazard Class: 8, Corrosive, Flammable liquid
UN Number: UN2789
N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-580-7), RCRA code: D001, D002

SECTION 16 — OTHER INFORMATION

This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Scientific Catalog/Reference Manual* for additional information about laboratory chemicals.

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Page 2 of 2

How can I prevent hazardous situations from occurring? (continued)

11 Clear, concise, and useful physical and chemical properties help you learn more about the chemicals you use. Formula and formula weight are also useful for making solutions.

12 Describes the conditions or reactions to be avoided. Also provides some indication about anticipated shelf life.

13 More detail on how the material may injure you. Acute (short exposure) and chronic (long-term) effects are listed along with their target organs.

14 Oral (ORL), inhalation (IHL), and skin absorption (SKN) toxicity data on test animals is included. For more information on LD$_{50}$s and LC$_{50}$s, see page 1036.

Other useful information.
Section 12–16.

15 Ecological impact if large amounts (e.g., tank car) of the chemical spill near a river or lake.

16 Suggested disposal methods for disposing laboratory quantities of chemicals. See pages 1077–1103 for Flinn Suggested Disposal Methods.

17 Department of Transportation shipping information is included for your school district, emergency responders, and transport/shipping departments.

18 Regulatory information used by regulatory compliance personnel.

19 Flinn Scientific has an ongoing program to update its MSDS. As professional chemists, we try our best to provide science teachers with the most accurate and useful safety information.

20 Call Flinn if you have any questions. We can help!