



Reading Household Product Labels

Adapted from: HYDROVILLE CURRICULUM PROJECT ©2004, Oregon State University,
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DESCRIPTION:

Students read labels from household products to recognize signal words and understand the basis for what makes these products hazardous.

PURPOSE/GOALS:

Students will:

- Identify hazardous household products based on product regulation labeling requirements and federal regulations.
- Read product labels noting signal words, hazardous properties, and route of exposure.

ESTIMATE:

Prep: 35 minutes

Activity: One 55-minute class periods

Part 1: Reading Hazardous Household Product Labels – 55 minutes

MATERIALS:

- 30 hazardous household products (oven/drain cleaners, pesticides, solvents, etc.) along with a few non-hazardous/non-toxic products for comparison (shampoo, toothpaste, etc.)

MATERIALS TO PHOTOCOPY: (1 copy/student)

- Student Handout: What Makes a Product Hazardous?
- Product Labels for Mold Control (labels for Mold Control! Activity)
- Student Worksheet: Reading Hazardous Household Product Labels

TERMINOLOGY:

| | | |
|-------------------|---------------|---------------------|
| Hazardous | Lethal Dose50 | Pesticide |
| Toxic | Signal words: | Routes of Exposure: |
| Corrosive | Poison | Ingestion |
| Flammable | Danger | Inhalation |
| Irritant | Warning | Dermal |
| Strong Sensitizer | Caution | |

BACKGROUND INFORMATION:

See Student Handout 1: What Makes a Product Hazardous?

SUGGESTED LESSON PLAN:

Reading Hazardous Household Product Labels – 55 minutes

Getting Started

1. Assemble a number of household products including hazardous household products, e.g., kitchen products (cleansers, drain cleaners), bathroom items (toothpaste, toilet bowl cleaner), household cleaners (detergents), lawn and garden supplies (fertilizers, pesticides), automotive and paint supplies, etc. Have a variety of products with the signal words: danger, danger-poison, warning, and caution. Also include some non-hazardous products, e.g., shampoo, toothpaste, and other non-toxic substances, i.e., products that do not have any signal words.

NOTE: At least one of the household products has to be a pesticide that is commonly used in the home, e.g., ant killers, insect spray, or cleaning products that advertise as “antibacterial”, “disinfectant” and/or “kills mold”. Be sure that ALL products are safe for students to handle.

2. Place these products in a visible area in the front of the classroom.

Learning Log Prompt:

What do you think of when you hear the term “hazardous”? What qualities would make a substance hazardous? How do you know if a product in your house is hazardous?

Answer: According to the Federal Hazardous Substance Act (1960), a hazardous substance is any product that is toxic, corrosive, flammable or combustible, an irritant, or a strong sensitizer. A hazardous household product 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.

Doing the Activity

1. Ask students how they can identify if a product is hazardous (read the label). Students decide which of the products displayed are hazardous and which are not, then separate the products into two categories: hazardous and non-hazardous. See if the students can further categorize the hazardous products, e.g., signal words, location used, or other properties.
2. To provide students with background information on hazardous household product labeling requirements and definitions, distribute Student Handout 1: What Makes a Product Hazardous? (See PowerPoint Slides “Reading Household Product Labels” as an additional source.) Have students read the handout and afterwards, discuss the following key points:
 - Federal laws require companies that manufacture household products to warn consumers of their products’ hazard to humans, animals, or the environment.
 - According to the Federal Hazardous Substance Act (FHSA), there are five properties that are used to identify hazardous household products. The definition and origin of signal words (Poison, Danger, Warning, and Caution) for hazardous household substances are based on these properties.
 - The Environmental Protection Agency (EPA) registers and regulates pesticides under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The signal words for pesticides are based on toxicity testing. Signal words (Danger-Poison, Danger, Warning, and Caution) are associated with the level of toxicity of the product, e.g., highly toxic, moderately toxic, and slightly toxic based on toxicity testing.
 - Hazardous substances may enter your body in three ways (Route of Exposure): Ingestion, Inhalation, and Dermal (skin or eye contact).
3. Divide students into groups of 3 or 4 and hand out Student Worksheet 1: Reading Hazardous Household Product Labels (1 copy/student).

4. Students working in groups, practice reading product labels using the household products displayed in the classroom. (Pass out copies of the three labels for the mold control if Mold Control! Activity is to be used.) Students should refer to Student Handout 1.

Wrap-up

1. As a class, share data from the Student Worksheet on an overhead. What did the student groups notice for each of the three signal words? What makes a product more hazardous than another?
2. Learning Log Prompt: What conclusions can you draw from this data?
3. Extensions or Modifications to Homework Assignment:
 - Create a poster, a brochure, video, or oral presentation that is designed to inform the public about FIFRA and FHSa labeling laws.
 - Design a better product label or look for label violations from outdated products.
 - Translate information on labels into another language and/or provide product label information to families in the community.

RESOURCES:

- American Association of Poison Control Centers. <www.aapcc.org>.
- Consumer Fact Sheet: How to Read a Pesticide Label...and Why. California EPA. Department of Pesticide Regulation. <www.cdpr.ca.gov/docs/factshts/labelnew.htm>.
- Federal Hazardous Substances Act. U.S. Consumer Product Safety Commission. <www.cpsc.gov/businfo/fhsa.html>.
- Mississippi University Extension Service. Hazardous Household Products. <www.msucare.com/pubs/pub1756.html>.
- National Pesticide Information Center. Signal Words. Dec 1999. **For questions concerning pesticides and other hazardous household products, call NPIC @ 1-800- 858 - 7378 (PEST) (npic.orst.edu)**
- U. S. Consumer Product Safety Commission. Office of Compliance. Requirements under the Federal Hazardous Substance Act: Labeling and Banning Requirements for Chemicals and Other Hazardous Substances. August 2002.
- United States Environmental Protection Agency. Office of Pesticide Programs. Read the Label First. <www.epa.gov/pesticides/label/>. United States Environmental Protection Agency. Office of Pollution Prevention and Toxics. Consumer Labeling Initiative. <www.epa.gov/opptintr/labeling/index.htm>.