



Learning by Accident

Learning by Accident is an ongoing Crucible feature, in which real-life lab accidents or incidents are recounted and explained. The goal is to highlight the consequence of ignoring safety rules so that science educators will be further encouraged to become knowledgeable, and to take appropriate action, in areas of safety that effect their daily activities in the science classroom. Submissions are encouraged. If requested, anonymity will be guaranteed. Please send written descriptions to Ian Mackellar, STAO Safety Committee Chair, Box 191, MAITLAND, ON K0E 1P0

Disintegrating Plastic Dropping Bottle

A science teacher was re-labeling a 150 mL plastic dropping bottle containing 1.0 mol/L sodium hydroxide with a wax crayon, holding it close to his eyes, when the bottle disintegrated. The teacher suffered chemical splashes to his face, neck and upper body. Fortunately, he was wearing chemical splash goggles and no eye injuries were sustained.

Close examination of other dropping bottles resulted in others being identified with cracks and the potential to disintegrate if any pressure was applied to them.

« « « Submitted by Ian Mackellar.

Ian Mackellar is STAO Past President and the current Chair of the STAO Safety Committee.

Comments from the STAO Safety Committee

The use of plastic dropping bottles for dispensing chemical reagents is common practice in most school science laboratories. It is recommended that:

- Eye protection be worn whenever plastic dropping bottles are used in the laboratory.
- Existing stocks be examined and any showing signs of wear (e.g., cracks) be discarded.
- Storage locations of these bottles be

reviewed and steps be taken to ensure that none are exposed to heat or direct sunlight.

- Bottles used for storage are of materials appropriate to the chemical they contain and that they are being used according to the manufacturer's or supplier's instructions. Dropper bottles previously containing consumer products (e.g., saline solution for contact lenses) should NEVER be used.
- Bottles be labeled before filling with a reagent. If re-labeling is necessary,

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units of measure—originally compiled as notes for a calculus class—on the Internet to help students and to satisfy his curiosity about building a Web site. Rowlett's site, "How Many? A Dictionary of Units of Measurement," has proved surprisingly popular, with contributions coming from around the globe. The dictionary covers the gamut, from land measurements to grit sizes to intervals of time. Visitors can discern the meaning of a salmanazar, "a large wine bottle holding about 9 litres, 12 times the volume of a regular bottle," or learn why a bridge in Boston is measured in smoots. (*Nando Times*, 30 January 2003 (registration req'd))
<http://www.nandotimes.com/technology/story/742362p-5394009c.html>

Latest Distributed- Computing Project: Smallpox Cure

A group of universities and public and private organizations has announced a new distributed-computing project to try to find a cure for smallpox. Project participants include Oxford University, Memorial Sloan-Kettering Cancer Center, IBM, United Devices, Accelrys, and the United States Army Medical Research Institute of Infectious Diseases. Recent fears about smallpox as a tool for terrorists have led U.S. President Bush to call for vaccinating millions of health-care workers, fire-fighters, police officers,

and military personnel. The smallpox vaccination, however, carries a risk of infection. The goal of the new project is to narrow the list of substances that might prove effective as a cure for smallpox after infection. As with other distributed-computing projects, volunteers will download a screen saver that gives the project access to unused processing power. The project needs a few million computer users to download the screen saver and donate their extra processing power to the molecular modelling and screening of possible compounds.

(*New York Times*, 5 February 2003 (registration req'd))

<http://www.nytimes.com/2003/02/05/health/05SMAL.html>

