

natural resources. Indeed, policy for environmental protection, pollution control, natural resource conservation and preservation should reflect the interconnectedness of natural systems and the role of *all* inhabiting species.

LISA D. NANSTAD

RUTH C. KRAMEL

*Hazardous Materials MSDS: Key to Chemical Hazards*, a videotape prepared by Air and Water Technologies (AWT), Wakefield, MA, in association with Metcalf and Eddy, 1993, US\$ 495.00, 18 min

About a year ago I reviewed several videotapes on hazardous materials prepared by Air and Water Technologies (AWT). They were excellent — and this new one is no exception. The key, as I see it, to effective hazardous material response (in an acute incident) and worker safety (in chronic chemical exposure) is information on chemical properties and hazards. The MSDSs (material safety data sheets) are a key resource in supplying that vitally needed information.

The goal of the video program (according to the brochure accompanying the video tape) is to “clearly describe(s) and explain(s) the terms and concepts contained in the MSDS and provide(s) information on its content, organization, and importance” — I believe their goal was well attained.

In addition to the video, the training package includes: a suggested lesson plan; a discussion guide; review questions and answers; an annotated script; additional references; a sign-up sheet.

The video starts with a discussion between a foreman and a new employee with the foreman relating the importance of MSDSs in conveying information to the employee on safety. The foreman first quickly reviews the major sections of MSDSs: manufacturer's identification; hazardous ingredients; physical and chemical hazards; fire and explosion hazard data; health hazards; precautions for safe handling and use; control measures.

The foreman then goes on to explore the details of information found in each of the foregoing sections, using isopropyl alcohol as an example. In the process, he explains the meaning of some of the innumerable acronyms we utilize in the environmental field: PEL, PEL-C and PEL-STEL, LEL, UEL, TLV, REL and ppm.

In addition to describing the physical and reactive properties of the chemical involved, the video shows demonstrations that chemists have prepared to illustrate the physical phenomena: relative boiling rates, etc.

Also well done is the health hazards section in which routes of entry of chemicals into the body and the negative health effects of chemicals are reviewed (including carcinogenic possibilities).

The final segment of the movie discusses chemical control measures — especially the type and use of personal protection equipment — respiration, gloves and eye protection.

The end of the video, appropriately, is a review of what was covered — a listing of the major sections of the MSDS.

I have discussed MSDSs every year in the hazardous materials class I teach at the University, but never have done as well as the two narrators in the video covering the topic. I hope to do better this year having seen the AWT tape.

In summary, the video is an excellent discussion of MSDSs. I strongly urge its use.

GARY F. BENNETT

*Emergency Services Sourcebook*, edited by D.G. Smith, Specialized Publications Services, Inc., New York, NY, 3rd ed., 1994, 1212 pages, price US\$ 119.96, ISBN 0-940613-08-4; 0-940613-03-6 (in two volumes)

This two-volume sourcebook is a massive compilation of sources of information and training for fire, emergency medical services, hazardous material handling, search and rescue, law enforcement and security, disaster reduction and industrial life safety.

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